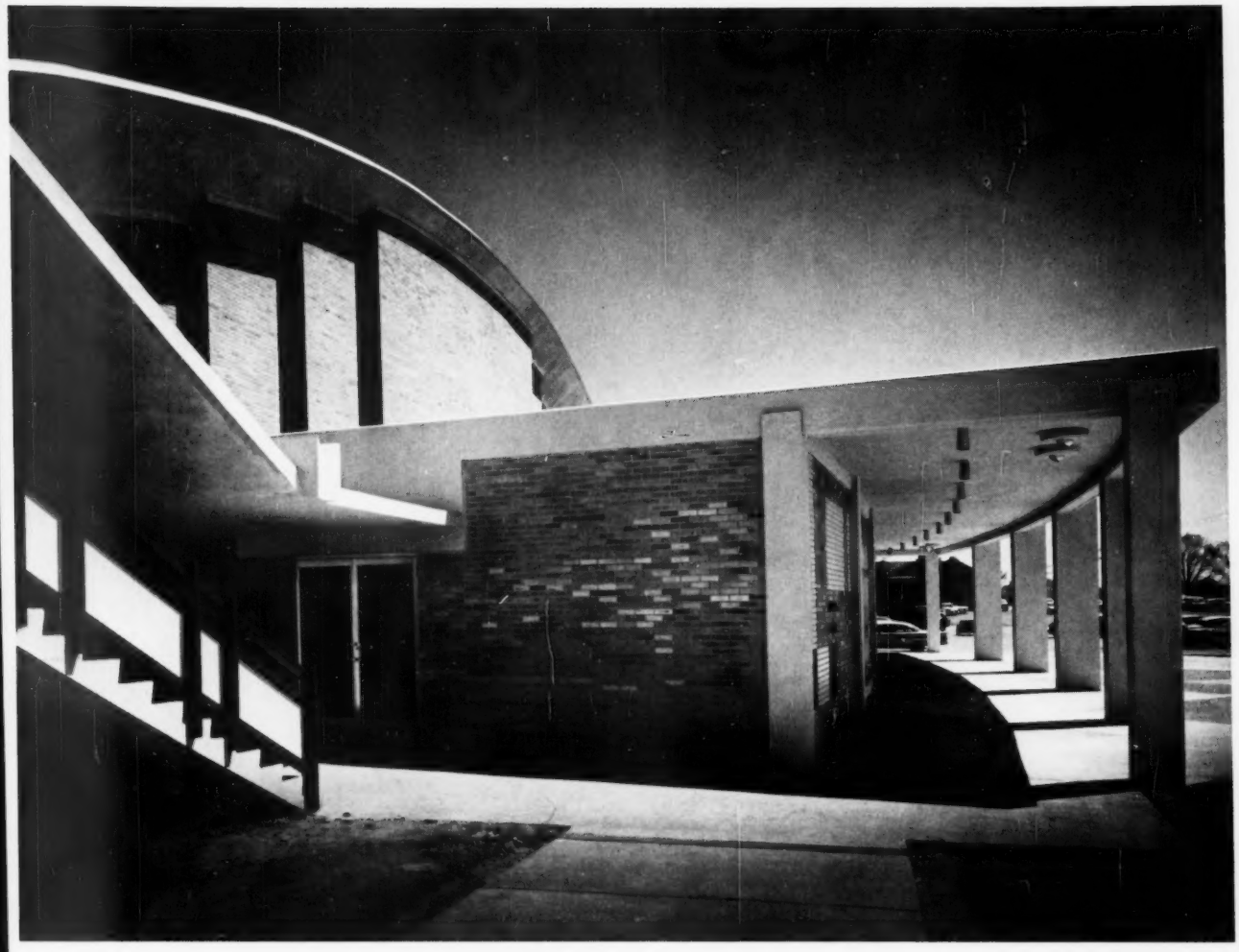

The American School Board Journal

A Periodical of School Administration

July *1961*

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Job-Rated Schedules for Teacher Salaries, Eisemann 15

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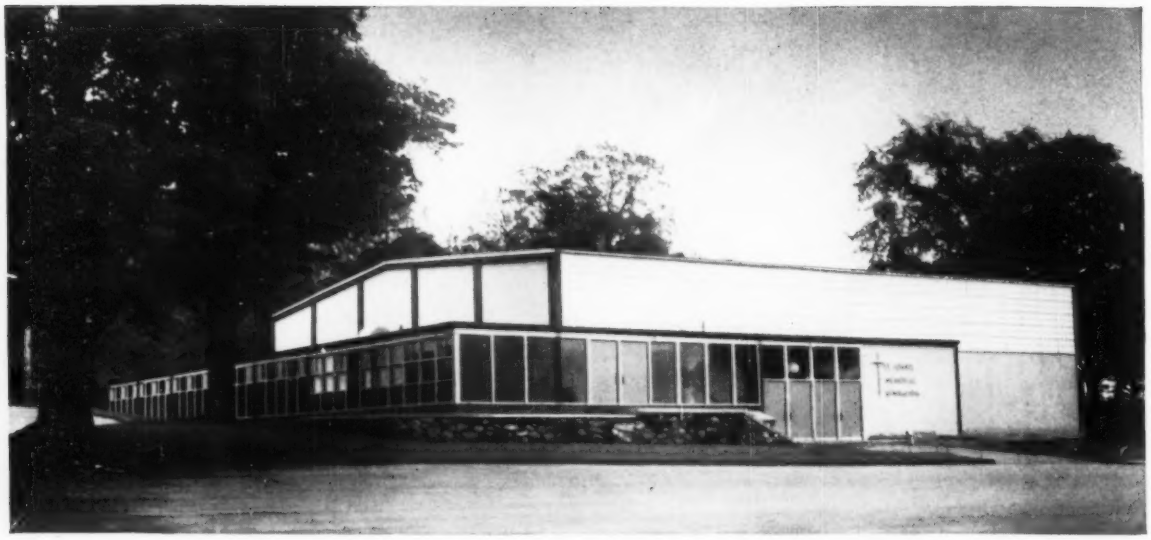

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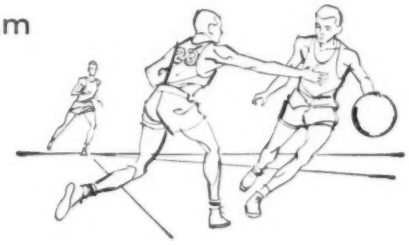

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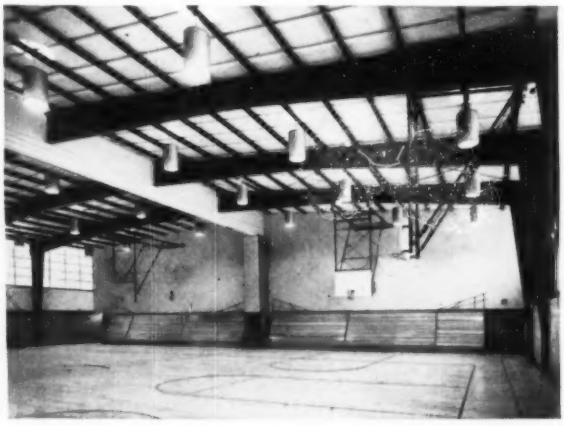

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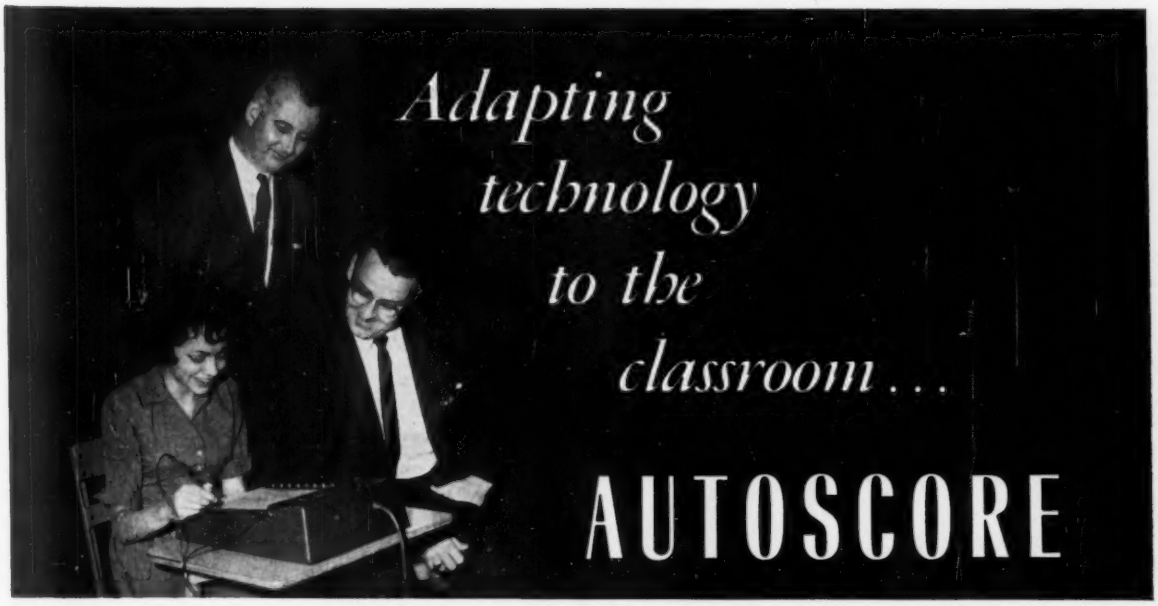

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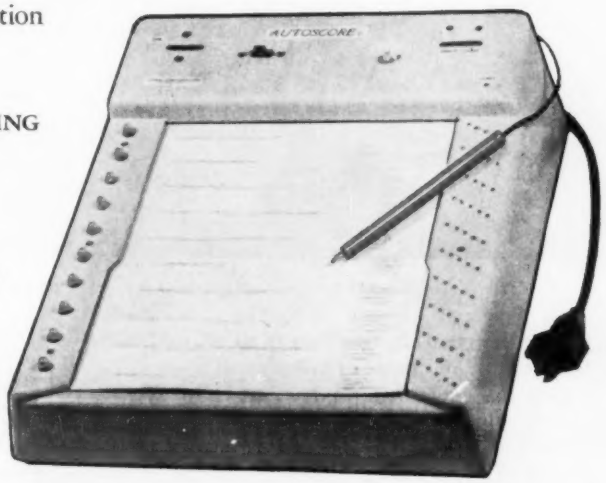

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OUR COVER

Featured on the July cover is the Frayser High School Auditorium. For details see page 28.

Mr. Hubert G. Olson, Superintendent of Schools,
Independent School District No. 271, Bloomington, Minnesota, says:

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Mr. Hubert Olson stands in the Library of Washburn Elementary School—one of four new schools built in the Bloomington School District.

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the school scene

■ **The Senate passed the Administration's aid-to-education** bill by a vote of 40–34. The bill provides authorization of $850 million for each of the three fiscal years, 1962, 1963, and 1964. Funds would be distributed under a state allotment formula based on relative number of school-age children and relative income per school age child. **The bill provides for classroom construction, teachers' salaries, and normal operating and maintenance costs.** The House's counterpart of the $2.5 billion measure is expected to face tighter opposition than federal aid received in the Senate.

■ A trend for **critical courses on communism** is appearing with greater frequency in the high school curriculum. Action on the state level include New York Gov. Rockefeller's authorizing such a course for 9th grade level and above in state schools. The course, "Communism and Its Methods and Destructive Effects," was not supported by the State Department of Education. **In Florida, Gov. Bryant signed a bill requiring high schools to provide a course in "Americanism Versus Communism."** Since 1956 the State Department has been encouraging high schools to promote the study and evaluation of Communist ideologies and methods. On the local level, **Supt. W. T. Hanes of Irving, Tex., has announced that a program of Americanism will be introduced** as "a positive approach to combating the menace of Communism."

■ **A decision on reopening the public schools in Prince Edward County, Va., next fall is still uncertain** — despite tentative operating budgets prepared for the school system. Since the schools were closed two years ago to avoid court-ordered segregation, 15,000 white children have attended a system of private, segregated schools and 1800 Negro children have attended no schools at all. Attached to the general county budget is a budget of $846,700 prepared by the school board for full operation of public schools. An alternative budget of $470,000 — which would provide for the 1800 Negro children — was also submitted. **No comment or action was made by the county supervisors when adopting the budget for other county activities.**

■ **One of the latest educational devices is an automated instructional program which combines television and teaching machines in an IBM card system.** The "Telecast Communications System" is teacher controlled and designed for large group instruction — unlike other teaching machines which permit students to set their own pace. In this system, **the teacher lectures over a television circuit; to stimulate individual participation, the teacher poses questions with up to four possible answers and pushes a button on a machine indicating the right answer.** Each student selects the right answer on a machine on his desk — with a green light for a right answer and a red for a wrong. In addition, each student's answer is automatically recorded on a card for classroom teacher use.

■ During the month of March **school bond sales,** in the amount of $239,562,800, were reported. The average yield of high class bonds was 3.51 per cent. The largest sales were: Alabama, $30,313,000; California, $19,949,000; Illinois, $21,560,000; Michigan, $17,978,500; New Jersey, $16,094,000; New York, $33,572,300; Ohio, $12,005,000; Texas, $10,105,000.

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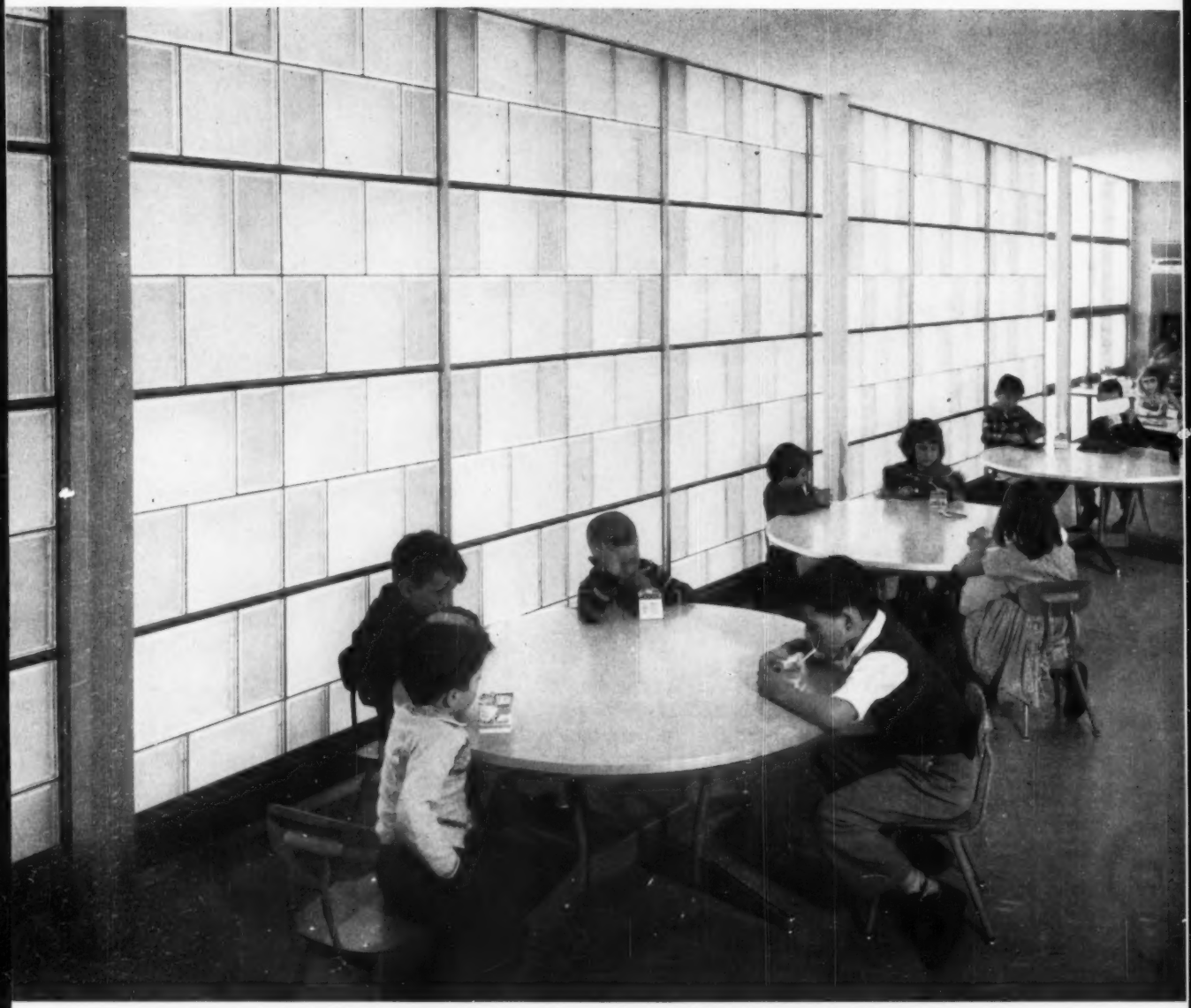

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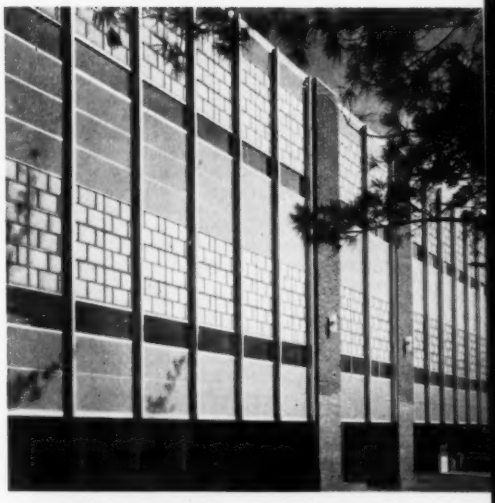
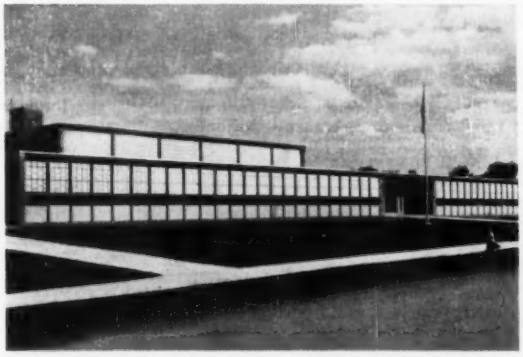
At Fontbonne Academy, Allegheny County, Pa., architects Celli-Flynn, McKeesport, combined light-controlling panels of green Thinlite with window and metal panels to achieve this unusual effect in the classroom wing.

Architect Enos Cooke, New Kensington, Pa., used Thinlite in a major way at Stewart Junior High School, Lower Burrell Township, Pa., blending light-controlling panels with windows and aluminum-faced insulating panels.



Architects Samuelson & Sandquist, Chicago, shaved years off the appearance of Lee Center (Ill.) school by modernizing with Thinlite Curtain Wall. The beautiful new wall controls sunlight and harsh weather.



Thinlite prismatic panels, with gray glass and porcelain enamel panels, control harsh sunlight and severe weather in John Quincy Adams School, West Allis, Wisconsin. Architects: Schutte, Phillips & Mochon, Inc.

West Carrollton (Ohio) Senior High School (Architects: Outcalt, Guenther & Assoc.) features extensive use of prismatic and window panels to protect occupants from sun and weather in classrooms, corridors and cafeteria.

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school and industry co-operation

A pioneer program involving school and industry co-operation has been successfully launched on a state-wide basis, following a two-year trial period. Under the auspices of the Thomas Alva Edison Foundation, leading New Jersey industries have joined hands with the State Board of Education in a pilot project in the crucial field of science and mathematics education.

The groundwork for the experiment was laid in 1956. It was created for the purpose of formulating essential goals and workable co-operative methods in teaching science and mathematics. The resultant two-year program, inaugurated in the fall of 1958, has been incorporated as an integral part of the New Jersey secondary school operation.

The project which aided private, parochial, and public schools, is in the form of a seven-point program. It includes three school-industry science conferences, eight forums for teachers, offering exchange ideas applicable to classroom demonstrations and student experimentation, a pilot traveling lecture-demonstration, extensive student tours under the supervision of teachers and industrial scientists, summer employment in laboratories for teachers, summer fellowships for students, science films for schools, and contribution of industrial research equipment and materials for school laboratories. A bibliography of instructional materials for mathematics and science teaching was compiled and distributed to 2000 science teachers and 500 school librarians. ■

substitute teacher shortage

For several years there has been a shortage of substitutes in North Dartmouth, Mass. This shortage has given rise to an experimental program which was carried on in Darthmouth for the first time this year. Early in the fall an orientation course for substitute teachers was announced. This course consisted of sixteen, two-hour sessions given by the supervisor of elementary education.

The response to the course was overwhelming. The 31 members of the class were very faithful; only one dropped out. The members were professional in attitude, and most businesslike and efficient in fulfilling the assignments.

In planning the course the aim was to keep it practical. Therefore, the early sessions were devoted to the study of a typical school day, plan books, textbooks, registers, and classroom routines. There were demonstration lessons in reading and arithmetic at both the primary and intermediate levels, a demonstration and instruction on how to plan a lesson, discussion on discipline and handling of children, and what the principal expects of the substitute. Just before the end of the course, two weeks were spent practice teaching with an assigned teacher.

It is hoped as a result of this course that there will be a greater supply of more understanding, more efficient, and more capable substitutes which will fill the need that exists in the area. At the present time, from this group there are 19 persons on the substitute list. ■

providing teachers with clerical help

In order to remove one of the obstacles to the effective teaching of English composition, the Springfield Public Schools engaged in a program of employing non-certified people to check errors on English themes and other written work. The teacher then checks the work of the graders and puts the grade on the paper.

These lay persons were chosen on the basis of the following criteria: (1) Test score (English competency test). (2) Training. (3) Experience. (4) Personal interview by the director of personnel, principals, and the teachers who would work with them.

The pay scale is $1.50 per hour. The work, which is largely done at home, amounts to ten hours per week.

The program was termed successful and will be continued another year. ■

fringe benefits

The board of education in Beech Grove, Ind., has approved a new plan of cumulative sick leave and additional compensation at retirement for custodial workers, secretaries, and cafeteria managers. Sick leave is available for all custodial and other workers up to a total of 30 days. Part-time employees will be prorated on the percentage of time employed in relation to full time allowable. Sick leave is also granted on the specific years of experience in the school system as follows: 1 year of experience, 5 days; 2 years, 7 days; 3 years, 8 days; and 4 years, 10 days. Men who reach the age of 65 and women who reach the age of 62 will, upon retirement, be granted an additional compensation for the accumulated sick leave, not to exceed 30 days. The rate of pay per day is based on the regular pay at the time of retirement. ■

new books

Taxes for the Schools

By Roger A. Freeman. Cloth, 441 pp., including appendices, 1960, $5. The Institute for Social Science Research, Continental Building, Washington 5, D. C.

This is a volume which should be read by every citizen who wishes to acquire an understanding not only of taxes but of education and the fundamental concepts of our governmental organization. To begin reading it is to be committed to completing it for it has a fascination and sense of purpose rarely found in other discussions of the subject of which it treats.

It is a guide to school finances and also to a better understanding of how our interlocking government units operate. Competition for the tax dollar at all levels of government calls for more than a statement of needs from those in the particular activity to be supported. "Taxes for the Schools" provides a comparison of the demands on the various political subdivisions, their burden of debt and ability to produce more revenue, the relative efficiency in expenditure and provision of services — not only in education but in many other areas. In one way or another, almost every aspect of public education which has been under discussion in recent years is examined, the cost tallied and the source of income explored.

This is done by means of a text that is lively and understandable, statistical tables from many diverse sources that are clear and quotable. Information is presented not only from the educational world but from many other sources involved in the political and economic life of the nation to give a total picture often lacking in partial or partisan presentations on this subject. Lifted out of dull and involved statistics the author has identified relevant material and presented it in a stimulating and engrossing manner.

With data clearly and understandably presented and arranged, drawn from a great variety of sources, the reader is able to judge between the varied conclusions which have in the past made the educational picture so confusing.

The reader's interest is held from the beginning "Preview" on "How to Raise the School Dollar" through an examination of powers and responsibilities in education, the tax structure, specific taxes which provide funds for the many demands on local state and national units, to an appraisal of the current controversy on Federal School Aid.

For the school board member it is a source book of information, a compilation of statistics, and a battery of argument which justifies and encourages the existence of school districts and the improvement of education at a local and diffused basis rather than by centralized direction or decree.

Many books have been written in general terms praising local operation of public schools. Lip service has come from many sources to the dedication of school boards, their devotion to providing the kind of education this nation needs and wants. Recently a few critics have openly and categorically challenged the diffusion of authority which directs American public education. Here is a book which goes beyond generalities. It exposes the bone and sinew, the blood, flesh and nerve which constitutes the body of the public school system. Extensive statistical tables and comparative analyses point up to weaknesses, suggest means of remedy, establish its vitality and show that no major operation or dissolution is indicated for the system which educates our children.

This book should be on the shelves of every school district and used as a handbook by school boards and their members. — *Carl B. Munck.*

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facts and features about an improved water heater made by RUUD especially for restaurant and food service use

Most restaurants have had or can expect to experience one or more of these problems: dishes don't come really clean. Glassware doesn't sparkle. Maintenance and clean up isn't up to par. For some mysterious reason, there is never enough hot water. Or it isn't hot enough. Sometimes it runs rusty. Other times not at all.

Anywhere else, problems such as these might be minor. When they plague a restaurant or food service operation, they're important because they involve the lifeline of your business—hot water.

To understand the problem, let's start with water. If slowly dripping cold water can bore a hole in solid rock, imagine then, what extra-hot flowing water can do inside a water heater tank. Small wonder most tanks made of ferrous metal eventually give in, with rust and corrosion resulting . . . and trouble following.

It makes sense to get the facts about the one metal, and the one water heater that eliminates the problems before they begin. Let's look at the new, improved line of Ruud Copper Sanimaster Commercial Gas Water Heaters.

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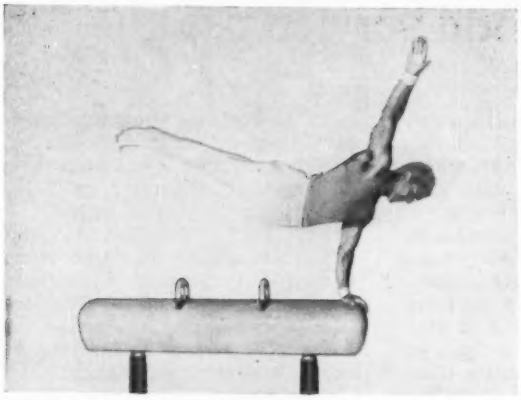

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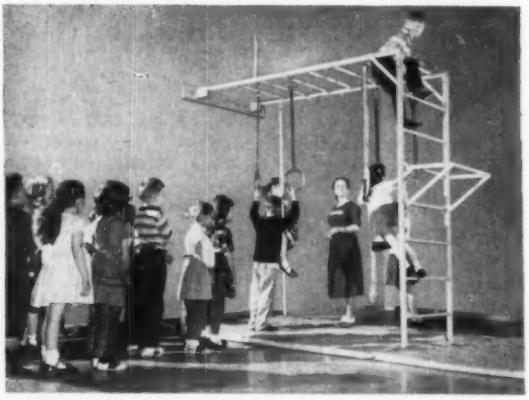

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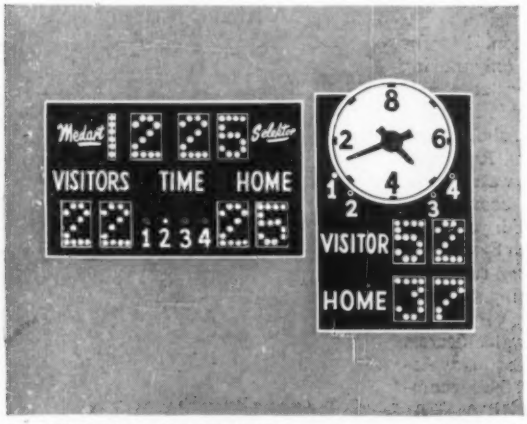

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The American School Board Journal
July 1961

Organizational Influences on Teacher Behavior

DONALD J. McCARTY

Are school administrators rejecting classroom supervision which in turn incites highly individualistic behavior on the part of staff members? A Cornell University professor thoroughly reviews this problem.

Mr. McCarty is associate professor of education at Cornell University, Ithaca, N. Y.

The assertion that the profession of school administration is still in a depressed stage of development cannot be materially challenged. The modern school administrator is the unfortunate descendent of the teaching principal, an office historically restricted to second-rate clerical duties. Though the position has matured enough to include the management of substantial financial resources, no image of the public school administrator as a dynamic educational statesman has penetrated the public consciousness. Rather, typical job descriptions for administrative positions stress skills such as proper supervision of the money flows of the school system, keeping the enterprise solvent, and maximizing services by allocating the scarce resources among the different areas which have demand on them. Public relations chores are fastened on as unavoidable appendages; since the community rarely gives a clear policy mandate, the emphasis place on external relationships tends to vary with passing, short term demands. Administrative meddling in the teaching-learning process itself, however, is not easily tolerated; "get good teachers and let them alone" is a shibboleth still held in high repute by the general public.

As a consequence, the subsequent administrative rejection of classroom supervision incites highly individualistic behavior on the part of staff members; the upshot of these independent tactics is person-oriented rather than goal-oriented conduct. For instance, within a system, one teacher may rule his domain with an "iron hand," another might be working on teacher-pupil planning, the next may have his class utterly out of control, while another might be subject-centered in approach.

In such a contingency, who provides the fundamental coordination, integration, and operational strategy? This is a key question. Since the public educational institution is a continuing enterprise and its survival is seldom at stake, isn't it entirely plausible that "keeping school" may become an end in itself? What we may commonly have is a financially well managed operation with little attention directed to the accomplishment of its genuine objectives. Almost by default the structural character of the enterprise itself is forced to act as a sort of psychological teacher and to mold individual teacher behavior in the dominant values of the school system.

The Boards's Policy Making

One can argue that the board of education, through its all-absorbing policy making function, provides the energizing stimulus. This will be true to the extent that staff members really think of the overall goals of the organization, and common sense would dictate that this proviso is frequently not met. Since school systems are essentially organized as bureaucracies, technical factors are apt to assume a pre-eminent position.

All educational enterprises are structured hierarchically with a system of roles graded by levels of authority which differentiate one person from another. Work is divided along specialized lines and personal discretion is limited through rules and regulations. Status symbols such as size and location of teaching stations dramatize and validate distinctions between roles. The operational consequence is a set of signals provided by the organization for its members which enable people to know where they belong. The total effect is to build rationality, certainty, and dispatch into the organization. Career advancement and psychic stability encourage the teacher to accept the prescriptions and the result is a fairly consistent behavior pattern on the part of individuals within the organization.

Such an organizational climate is likely to be a more salient influence on teacher behavior than the vague educational philosophy of the chief administrator, if known, or the theoretical mandates prescribed by the local teachers college, if understood. Working climates may vary from school to school, but each system structures its own situation so that behavioral expectations are quite clearly evident.

A School With Tradition

Consider a few examples. You have just been employed by Osopeachy High, an old venerated school with firmly built up traditions. Having prestige in educational circles, it caters almost exclusively to a college preparatory clientele. Located in a wealthy suburban area, the financial emoluments for teachers are superb. The impact of such an organization on you cannot help to be considerable; you must learn the behavior patterns which go along with your post. Both the formal and informal rules need to be mastered and these range from appropriate dress and deportment to the models established for pupil-teacher relationships. To violate these norms is to endanger your status in the organization.

You find that Brooks Brothers clothing or its reasonable facsimile is the preferred uniform, that you should try to handle your own discipline problems without referral to the administrative offices, and that your success in teaching will be evaluated by the results of your students on college board examinations. Smoking is permitted in the well appointed teacher lounges, and it is quite acceptable to enjoy a cocktail at the better restaurants in the vicinity. You are supposed to criticize education courses as superfluous and you should model your teaching techniques after the university professor. Competition among students for grades is good; social promotion is bad. And from these relatively gross expectations you are to keep a sharp lookout for the barely detectable cues which are constantly being given.

This example may seem slightly exaggerated, but is it? This school obviously has a clear advantage because its mind is made up before the teacher joins the group. In support of this point, research by Kurt Lewin and his associates revealed that an individual's behavior is sharply conditioned by the structure of his work group. Inasmuch as learning is a process of recognizing symbols or stimuli, learning is facilitated when the situation is understood.

Conflicting Groups

Contrast the previous case with the Sleepy Valley High School, a rural central school which services a culturally and economically deprived territory. The faculty is divided between two groups of approximately equal numbers. One group is made up primarily of middle-aged local women who are permanent fixtures in the community; in general, this group tends to be totally disinterested in changing the status quo, and is well satisfied with an inferior salary schedule.

The other group is less cohesive; it is younger, mostly transient, critical of the administration, salaries, facilities, and the like. However, teachers in this group escape with a jaded cynicism toward the organization and the community. Comments reflecting this attitude such as "What the heck, it's their school," or "Oh, well, I'm leaving after this year anyway," are commonplace.

In this particular system you have to make a choice between two behavior patterns, and if you wish to remain, you would wisely select the more powerful group or assume a neutral position. To return to the point with which we started, the organization is a social microcosm, an ongoing society in itself, which acts as a socializing instrument. Successful teachers are those who can identify with the organization and accept as given the prevailing system; man is a remarkably adaptive animal and the most functional way of getting rid of anxiety in any situation is to conform to preferred models.

Given these facts, what is the dysfunctional result of the organization's pressure on the individual? One indictment can be made flatly: in developing and polishing men into similar molds, the tendency is to produce overconformity. If the position of teacher as defined by the organization does not adequately satisfy growth needs, the individual may ossify on the job or seek gratification outside school hours in such activities as building boats, raising flowers, and the like.

Since a school's overall success is irrevocably tied to a board of education's skill in forming, stimulating, and evaluating policy decisions, steps must be taken by the board to limit restrictive organizational influences.

Creativeness and Leadership

The first requirement is to sustain the truly creative teacher by permitting a certain amount of goal-oriented idiosyncratic behavior. For example, if the development of critical thinking powers in the student becomes a legitimate objective for a school, teachers should be permitted to experiment with techniques designed to achieve this end. A note of caution needs to be inserted here; eccentricity for its own sake and unrelated to the purposes of the school is pointless exhibitionism.

A second method of attack on organizational torpor is to increase the amount of participation by teachers in leadership acts. Job enlargement at all levels in the hierarchy is normally a more efficient way to structure an organization; if it doesn't seem to pay immediate returns in improved administrative services, the unexpected dividend may well be the boost given to a teacher's individual development. Douglas McGregor has argued that an individual's real potential is never discovered unless he is given an opportunity to self-actualize — that is, to participate in leadership activities as a valued colleague.

The most paramount function facing the board of education is the formulation of clear objectives for the school system. Since educational aims involve value choices selected from among a wide range of alternatives, it is mandatory that the public interest be operationalized in specific terms. Admittedly, to define the public interest in an exceedingly complex undertaking; however without a statement of principles the teacher has no standard against which to measure his performance. The exigencies of our times demand sound educational policies as guideposts for the professional conduct of our schools; improvisation on a day to day basis is hardly the desired alternative.

Since our final solution may appear on the surface as another impractical textbook remedy, let us examine the implications of the statement in a real situation. Suppose that a board of education were to state categorically that the principal aim of its schools shall be the development of the minds and the acquisition of knowledge by all children. All other aims, however important and desirable they may appear in themselves, shall be subordinated to this primary aim insofar as the functions of the schools are concerned.

Immediately, the administrative implications of this limited educational objective become apparent. With respect to children, this policy suggests ability grouping, heavy use of standardized achievement and ability tests, traditional type report cards, acceleration of gifted children and non-promotion of low achievers, and absolute standards for each grade level. Teacher in such a system will be encouraged to do graduate study in the arts and sciences excluding professional courses in education; teaching success will depend to a considerable extent on the performance of one's students on standardized tests; rigid conformist, authoritarian teacher types will be most successful.

Whether or not one agrees with the aforementioned policy statement, and only the board of education working within its own community context can make this determination, purposiveness is the essential ingredient needed to counteract the negative aspects of organizational inertia. And much more than mere intellectual understanding of educational aims is demanded. Teachers who affiliate with a school must believe in its cause and subscribe to its goals. Through this kind of firm commitment and personal identification with enterprise objectives, we are able to gain the healthy advantages of individual and self-directed effort without destroying organizational intent. ■

A Job Rated Schedule For Teacher Salaries

CARL EISEMANN

Dr. Eisemann is district administrator of Lakeland High School, Minocqua, Wis.

The district school administrator of Lakeland, Wis., explains the teacher salary plan adopted recently by the district's school board — a plan based on the point rating of each staff member.

Many school systems concerned with securing and retaining effective teachers have experimented with different types of salary programs to attract and reward superior teachers properly. Teacher groups have continually opposed the various forms of "merit" programs; seldom have these groups offered anything better in lieu of the merit plan than the antiquated "years-and-education" increment program. Two of the principal objections to "merit" pay have been the rating of one teacher against the other and the lack of objective, acceptable scales to determine the teacher's professional worth.

The Lakeland, Wis., board of education has held that some way must be found to differentiate between salaries on the basis of individual contribution to the total school program. The following program appears to do this while eliminating many of the objections commonly associated with a "merit" type schedule.

The Lakeland High School District was in an extremely advantageous position to institute desirable policies in its educational program. When the district was organized in 1956, an area of over 700 square miles united to create a new high school district of 400–450 pupils. Since this new school district had no traditions or existing staff with its bias to consider, the board of education was able to outline its philosophy prior to the hiring of staff members. One aspect of the new program was the board's insistence on establishing some form of "merit" pay encouragement for its staff.

In its selection of an administrator, the board of education insisted that someone familiar with, and sympathetic to, "merit" programs be secured. With unanimity of opinion at the policy and administrative level, it was relatively simple to select teaching personnel who were in accord with the "merit" principle or who would be willing to work under such a program. Each person who was offered a contract was informed of the board's policy and asked to react prior to issuance of his contract.

Initial Difficulties

In spite of these precautions, several difficulties arose. The first was caused by the lack of staff involvement in initial planning. Since there was no staff, the administration had to prepare a program. This program was based on a point rating of each staff member. Frictions developed and it became apparent that this "person-vs.-person" point system needed revision. Another obstacle to acceptance resulted from establishing too low a basic program of salaries without "merit" increments. As a result of these two areas of disapproval, the faculty, including some of the best rated teachers, requested a review of the salary program. Concurrent committees of teachers and board members worked independently to prepare programs which might offer a solution on the major points of disagreement. After each group had jelled its thinking, joint conferences were held.

Prior to these joint conferences, however, several members of the board of education and the administrator attended a state school board's conference where one casual remark by a speaker on the topic of job rating instead of person rating as a basis for merit pay, set off a chain reaction. Research on the limited information available in this field by the administrator, followed by staff and board conferences, led to the mutual abandonment of all previous salary programs in the Lakeland school system and an almost unanimous endorsement of the following program.

The Revised Salary Plan

It is the opinion of all concerned that effective instructional practices, teacher loads, professional competence, and degree of professional responsibility can be and should be measured, and that the varying levels of competency and load should be considered in assigning salaries.

It was agreed that many staff members would be content to accept lower salaries for classroom work if their other assignments did not require major expenditures of time beyond a "normal" working day.

It became readily apparent that certain specific objectives had to be worked out. The objectives that evolved from this philosophy were:

1. To define loads and responsibilities in a specific manner.
2. To develop a classification of teaching positions which carries salaries commensurate with the responsibilities of those positions.
3. To assign teachers to these classifications on the basis of competence and interest rather than to rate individuals against one another. (This cannot be completely avoided.)
4. To establish a basic salary program attractive enough to hold good teachers without merit increment.
5. To establish added incentives and higher terminal pay to encourage those

interested and most capable to remain in the system.

6. To reduce staff frictions to a minimal level comparable to that found in other staffs.

The Salary Program. Under this program, even-numbered levels on Table I indicate master's degree differential, levels 11 and 12 must have master's degree, and odd-numbered levels the bachelors degree. Beginning teachers enter at Step 0, level 1 or 2 and must remain at Steps 0 to 2 for a minimum of two years and a maximum of three years. Experienced teachers from outside the system are generally placed at level 3 or 4, though they may be placed higher if their recommendations warrant. It might be noted that the board provides no separate extra pay schedule for extra-curricular duties, but they do provide Life and Health and Accident Insurance for all teachers in addition to the salaries indicated. The board also sponsors one membership in a professional organization for each staff member.

The classroom level salaries are equal to or above most salary schedules in our area and the steps to the top of each level are reached much more rapidly than most. The professional level schedule is superior to most area programs and is reached with nominal regard for years of service. This program is not the optimum in teaching salaries and will be raised, but it is realistic for northern Wisconsin.

Two Examples

The mechanics of the program are relatively simple and can be best illustrated by showing the maximum and minimum rate of progression for any staff member:

Teacher A — 1st contract, Step 0, No experience, (BA) $4,000 plus fringe benefits; 2nd contract, Step 2, Level 1, (BA) $4,400; 3rd contract, Step 3, Level 3, (BA) $4,800; 4th contract, Step 3, Level 7, (BA) $5,400; 5th contract, Step 3, Level 10, (MS completed) $5,900; 6th contract, Step 3, Level 11, (MS) $6,300; 7th contract, Step 5, Level 12, (MS) $6,700; and teacher then follows Level 12.

This type of progression makes it possible for a superior young person to receive rapid advancements without leaving the school system and to receive this advancement at a time when it is most needed.

Teacher B — 1st contract, Step 0, Level 1, (BA) $4,000; 2nd contract, Step 1, Level 1, (BA) $4,200; 3rd contract, Step 2, Level 1, (BA) $4,400; 4th contract, Step 3, Level 3, (BA) $4,800; 5th contract, Step 3, Level 5, (BA) $5,200; and then follows Level 5 to termination; teacher must earn minimum of 5 credits or equivalent each 5 years.

Definition of Terms

At this point it might be well to define the steps and levels.

Steps. Are normal years of experience within a given level; not the traditional number of years of teaching experience recognized on many salary schedules. The assumption is that compensations are made by changes in levels until a teacher reaches the highest level commensurate with his ability and interest. At this point the steps become experience year steps.

Levels. These are determined by a combination of ratings, responsibilities, and vacancies available within the system.

Ratings. Throughout a teacher's career, he is constantly evaluated by the administrative staff regardless of his position on the schedule. These ratings are made known to the teacher. The staff member has a right to request a review of ratings by a committee of master level teachers. This committee does not rate teachers directly but may request justification by the administration as to the evaluation made. The committee may, if it chooses, review any case. The teacher has the right to request a board of education review of the evaluation at any time.

Ratings are based on classroom effectiveness, professional advancement, degree of responsibility, and community acceptance. No attempt is made to assign point values. Classifications of superior, above average, average, and below average are used. Three instruments, North Central Standards, Higgins Analysis, and an administrative checklist, have been synthesized to provide a greater degree of objectivity.

Rating of classroom effectiveness is judged on five points: (1) lesson planning and follow-up, (2) student-teacher rapport, (3) methods of presentation, (4) evaluative techniques, and (5) follow-up of evaluation.

These points were selected on the premise that excellence in the "mechanics" of instruction should and does give greater asssurance of classroom effectiveness. Teachers who show greatest skill in these areas are, for the most part, more effective teachers. Therefore, if we judge only on these relatively measurable traits, we can minimize the factor of subjectivity.

In all cases greatest weight is given to classroom effectiveness and responsibility. In order for a teacher to move from the probationary levels to the rated levels, he must be judged at least "average" to "above average" in most aspects.

Differentiation in Rated Levels. There are three basic distinctions, ability, time, and responsibility, between the Classroom Level, Professional Level, and the Master Level teachers. In order to qualify for the classroom level, a teacher must have at least "average" to "above average" ratings in classroom effectiveness and must be assigned normal routine or minor responsibilities. These teachers are seldom requested to take major in-service committee leadership. They can expect to handle most of their work during an 8:00 to 4:00 school day (paper correction and lesson planning excluded), though each teacher has one 70 minute preparation period per day. Many teachers in this category do carry on subject area clubs and do exceptionally fine classroom work.

Professional Level. These teachers are rated above average to superior in classroom effectiveness and assume major responsibilities in some academic or co-curricular functions.

Such activities as gifted or accelerated student projects, curriculum study and co-ordination, in-service leadership ath-

(Concluded on page 46)

TABLE I

		Probationary				Rated Teachers							
		Entering		Transition		Class Room Level		Professional Level				Master Level	
Steps		1	2	3	4	5	6	7	8	9	10	11	12
0		4000	4100										
1		4200	4300			These levels all above this							
2		4400	4500			Point							
Local	Outside												
3	4,5,6			4800	5000	5200	5400	5400	5600	5700	5900		
4						5350	5550	One		5850	6050		
5		People who				5500	5700	Step		6000	6200	6300	6700
6		are not moved				5650	5850	Transi-		6150	6350		6850
7		to level 5 or above				5800	6000	tion		6300	6500		7000
8		after this time						Level				Transition	
9		are released.				5950	6150			6450	6650		7150
10							6250				6750		7300
11	Individual Determination	Longevity pay possible after this step with board discretion.											7450

Federation Versus Action Group: The NSBA Cannot Be Both

EDWARD M. TUTTLE
Mr. Tuttle is Executive Secretary Emeritus of the NSBA.

NSBA's first executive secretary questions the wisdom of the decision of the 1961 convention's delegate assembly to broaden the scope of the federation to include "action on the nation's educational issues. . . ."

AT its recent convention in Philadelphia, the National School Boards Association sowed the seeds of its ultimate disintegration. Whether that disintegration will come quickly or will drag out over years of fruitless struggle remains to be seen, but the final outcome is inevitable so long as our American system of state and local control of public education endures.

Current NSBA leadership, ambitious to exercise more immediate influence on national educational policy, persuaded a majority of the voting delegates (two from each state association) to adopt a resolution to include in the national association's program "action on the nation's educational issues." Immediately afterward came an illustration of what such "action" would be like, when the same delegates voted two to one against a resolution favoring Federal support for schools, thereby splitting the ranks of the association wide open.

The National School Boards Association cannot at the same time be a Federation of State Associations and an Action Body on issues where there are strong differences of view among the states. This is ground which has been intensively gone over several times in years past, but which once again seems to have been forgotten. Two different types of organization and services are involved, which cannot be combined and operated successfully.

As a federation, the national association looked for its primary support to all of the state associations, without exception, and to those local boards which, as members of their state association, were willing to endorse affiliation with the national organization and to supplement the amount of financial support given to it. Such a national association rested on a firm and enduring foundation and was in a position to render maximum service in terms of its means to *all* boards of education, without any distinctions.

As an action body, the national association cannot expect continued support from those state associations which its "actions" oppose, and must therefore be chiefly dependent on support from local boards. Such an association is based on the shifting sands of popular appeal to thousands of boards whose membership is constantly changing. Its services must be limited to its membership which will by no means include all the school boards of America or perhaps even a majority of them in actual fact.

Moreover, how is policy and/or action to be determined in the "action" type of association? Certainly not for long by two voting delegates per state, as under the federation plan. Changes will be demanded in the basis of representation to add to the complications of the support structure. So, step by step, the disillusionment and disintegration will go on until the National School Boards Association loses all resemblance to the vision of its founders, and becomes just another membership organization, struggling to maintain its prestige, and seeking to throw its weight around. This is a sorry picture on the current educational scene at a time which calls for the highest degree of leadership and co-ordination on all levels.

As one who devoted years of unstinting effort toward establishing the National School Boards Association on a sound service basis, I confess to feelings of dismay and futility at the recent turn of events. In the brief paragraphs above, I have tried to set forth clearly the bare facts of the situation facing the NSBA as a result of the action in Philadelphia — facts which its present leaders are either unaware of or choose to ignore.

Any reader concerned enough to want a broader background of understanding might refer to Chapters 25 through 29 in SCHOOL BOARD LEADERSHIP IN AMERICA, dealing with the origin and structure, the functions and services, and the co-operative affiliations of the National School Boards Association, Inc. over the last two decades. ■

A Check List For Board Members

JOHN B. BARNES

Mr. Barnes is director of the Division of Educational Research at Arizona State University, Tempe, Ariz.

The largest public trust in America is the school. It is the largest financial trust. It also involves more individuals than any other public endeavor. And experts say the school is today the pivotal instrument in shaping the destiny of our country.

School board members are the trustees and policy makers for the public schools. What should an enlightened school board member know about his school district?

Check yourself! If you are astonished at what you don't know, these questions can serve as a primer for personal study about your community's schools.

A. Finances

1. What is the current bonded indebtedness of your district?
2. When will this be paid off?
3. How much additional funds could now be raised under the bonding limitations of your district?
4. What was the square foot cost of your last school building?
5. Is this consistent with community buildings of comparable quality and function?
6. What is the current school district tax levy?
7. How is this levy set and by whom?
8. What is the average teacher's salary in your district? Elementary? Secondary?
9. What is the average administrative salary in your district?

B. The Professional Leadership: Teachers, Administrators, and Special Personnel

10. How many teachers and administrators does your district currently employ?
11. What is the district's ratio of teachers to administrators?
12. How many and what kinds of special personnel are employed by your district?
13. What are the state certification requirements for elementary and high school teachers?
14. What is the average educational attainment of your classroom teachers? The lowest and highest educational attainment?
15. What is the average number of years of professional experience of your teachers and administrators?
16. What is the average length of tenure of teachers and administrators currently in the district?
17. How many teachers and administrators are currently candidates for higher degrees in colleges and universities?
18. To what extent are teachers and administrators engaged in professional development on the job? Are such opportunities considered a vital part of the school's function?

C. The School Plant and Equipment

19. How many school buildings does the district now have?
20. What is the estimated value of the buildings, lands, and equipment?
21. Does the district have a business manager with business experience and training?
22. How much insurance is currently in force on the district's school buildings? Equipment?
23. When was the last inspection made on older buildings in the district? How and by whom?
24. When was the last insurance appraisal conducted? How?
25. Are the school buildings properly maintained in terms of safety and cleanliness? Are they in good repair so as to protect the investment?

D. The Student Body

26. How many elementary and secondary students are enrolled in your district this year?
27. What is the pupil population trend?
28. In which grades are the heavy clusters of pupil population?
29. What organizations are available for cocurricular activities of pupils? List their functions.
30. How does the student body fit into a state and national profile in terms of achievement in basic fields of study? English, Arithmetic, Science, etc.
31. What per cent of the elementary school graduates in your district generally complete high school?
32. What per cent of your high school graduates enroll in college?

E. The Educational Program

33. Are there special classes for "exceptional" children? In what grades or academic areas?
34. What are the promotion policies of the elementary schools? High School?
35. What new innovations in school programs have been made in the past two years?
36. Are these new innovations being researched or carefully examined and evaluated? How and by whom?
37. What are the school's basic graduation requirements?
38. What courses are available beyond basic requirements?
39. How many courses are there in languages? In the social and physical sciences? Arts? Vocations?
40. What standardized testing is required in elementary and high school?
41. What is the ratio of guidance personnel to students in the elementary schools of your district? High schools?
42. Has the educational program been examined and evaluated recently by professional consultants or accrediting agencies?
43. Have studies of the student population been made so that teachers are aware of the academic levels and potentials of students in elementary school and high school?
44. What subject areas do most students do poorly in?
45. What steps are being taken to improve this situation?
46. Do student clubs and organizations complement or conflict with academic programs?
47. What kind of program for the prevention and treatment of accidents does your school have?
48. What program of student insurance does the district have?
49. What modern teaching aids, tools, equipment are available? ■

A Model Three-Track Summer School

FRANK B. TOALSON

Mr. Toalson is Superintendent of Schools in Dodge City, Kans.

The literature on summer schools[1] and 12-month schools is abundant. Summer schools are not new. Many of the larger school systems have conducted summer sessions for many years. In the past most of these schools have been "make-up" or remedial schools. In recent years we see more of the schools offering advanced courses for acceleration and enrichment. Today when summer jobs for teenagers and "chores" for younger age children are scarce, something more in summer school opportunities seems appropriate. Too much free time can be conducive to activities that are not acceptable to the community.

The Dodge City community is conducting a summer school plan that seems to fill all of these needs.

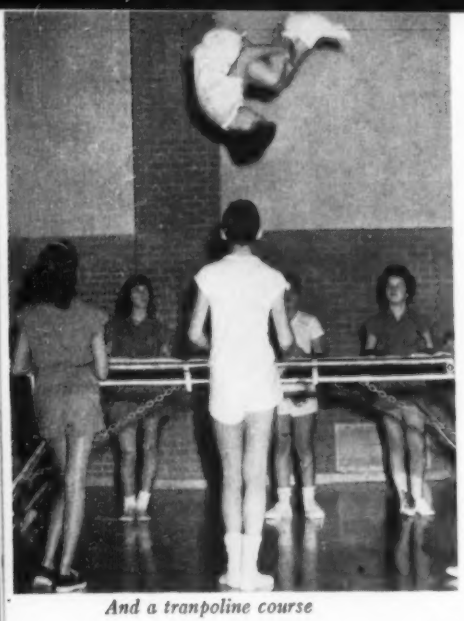
Dodge City, Kans., is located in the southwestern part of Kansas in the hard wheat and cattle raising country. Dodge City is a town of approximately 14,000 population with a public school population of 3700 K-14 students. While the Dodge City schools have had summer school for years, offerings were mostly instrumental music and elementary remedial work. In 1960 the board of education approved the extension of the usual summer session to include the addition of enrichment, hobby, and special interest courses. High school academic courses and driver education courses were also to be offered.

In planning this broadened program, the superintendent of schools called a meeting of representatives of all organizations that sponsored any type of academic, recreational, religious, or social activities for youth, kindergarten through grade twelve. Representatives from the Recreation Commission, the churches, the Red Cross, the Boy and Girl Scouts, the parochial schools, and the junior college were present. The tentative summer school plans of the public schools were presented and discussed. It was the decision of the group that as far as possible there should be no duplication of effort and that otherwise they endorsed 100 per cent the plans of the public schools.

The summer offerings of the Recreation Commission of summer baseball, playgrounds, golf, movies, archery, crafts, wading, square dancing and soft ball; the swimming program of the Red Cross; the academic program of the two college for college and adult students; the church school program; the scout camps: all these were not duplicated. Rather, they were worked into a complete all-inclusive program for the youth of the town and community. The dates for the summers session were set to start at the close of the two-weeks church school sessions and were to con-

[1]A. Raymond Rogers, Jr., "A Primer on Summer Schools." AMERICAN SCHOOL BOARD JOURNAL, April, 1960.

Two activities of the three-pronged Dodge summer program include, below, the orchestra group and, at the right, a course in the special dramatic and dancing program.



And a tranpoline course

tinue for six weeks. It was agreed that attendance at the activities and classes of the public school summer session was to be optional; that is, if scout camp, swimming lesson, recreational activity called for the students presence, absence from summer school activity would be permitted. This, however, did not apply to high school courses for academic credit where attendance was required for a minimum period of time according to state board of education requirements.

With the way cleared for the actual organization of the summer school program, a preliminary bulletin was sent by students to all families of the area. The type of courses and activities which were to be available were listed. As indicated above this included courses for children from kindergarten through grade twelve and included academic, hobby, enrichment, remedial special interest, and, finally, driver education. Rules regarding enrollment (deposit of fee by May 15) and certain eligibility restrictions were given. The tuition of $3 per hour for the six weeks course for enrollment in music, $6 per hour for most other hour courses and $12 for the course in driver education was listed in the bulletin, and the calendar dates of June 13, to and including July 22, were set. Students were told that they could enroll in as many as four hours of courses per day. A tentative enrollment blank was part of the bulletin. Parents were urged to make tentative enrollments (without payment of fees) to enable us to take the next step of determining the possible courses that would be needed to fulfill the wishes of the children and the parents.

While the success of our summer school depended upon many things, it depended first of all upon adequate publicity. As indicated above, we sent the preliminary bulletin home to the parents via their children. The local newspaper and the radio and television stations were interested in the venture and gave us excellent publicity. The superintendent and other administrators in their various appearances before civic and social groups talked about the program. The PTA was acquainted with the summer school plans in its monthly meetings and gave the plans excellent publicity. A group of elementary students from Midwest City, Okla., Schools presented a gymnastic, tumbling, trampoline exhibition before all 3600 students of the public schools. Their performance was professional and gave the course in gymnastics, tumbling, and trampoline a big boost.

From the tentative enrollments, we were able to get a fairly good idea of what courses would have sufficient enrollment to warrant offering them.

With the schedule fairly well indicated by the tentative enrollments, we went to work obtaining teachers for the program. We decided that in most cases four teaching hours was a fair load. As in education generally, the teacher is the most important part of the program. Teachers were selected carefully and after selection were asked to work up brief statements concerning the program to be covered in their course. These statements were made available to the various elementary and junior high and senior high school buildings. Incidentally, the pay for teachers was approximately $3.25 per hour taught with some differentiation depending on preparation and availability.

The superintendent acted as director of the summer school program from its inception to its completion. Perhaps there should be a director hired for this work, but in the case of limited finance, this job can be handled by some interested person along with his or her regular work and the help of the central office secretarial staff.

There were approximately 800 students enrolled in the various courses offered. Dodge City, with a tradition of intense interest and participation in music activities, enrolled 300 students in the music courses taught by two of our regular school music teachers. Beginners in brass, woodwind, and string instruments were enrolled in beginners' groups and in private lessons (the fees for private lessons were correspondingly more); there were classes for intermediate and junior-senior high students and also instruction in the summer band and orchestra group. These music courses were probably the most popular of all courses offered.

Courses were taught in remedial arithmetic and reading for all ages through junior high school. The teachers were carefully selected and results were excellent.

Rapid reading courses for grades through junior high were offered. The controlled reader film strip machine was used with considerable success. "Emphasis" according to the teacher, "was on stretching the reading skill, speeding it up, for use in appropriate reading." Enriched arithmetic was offered for students in the upper 25 per cent of their class. Conversational Spanish and German were found to be popular with elementary and junior high students and there was a sizable enrollment in both offerings. Personal typing was open to all ages and there were four full classes. There were two classes in dramatics and summer theatre. These classes were taught by the senior high school dramatics coach and uncovered much dramatic talent which will be available to the high school in years to come.

One unique course was the "Enriched Science for Elementary Students." According to the teacher, "the disciplines touched upon included astronomy, chemistry, physics, biology, human physiology and anatomy." Each student was allowed to pursue the projects of his own interests. There was a "Great Books" course taught by a teacher that developed much enthusiasm for reading. There were several hours for classes for the mentally retarded youngsters. These classes were organized with the co-operation of the mothers of the children. The mothers, Girl Scouts, and Boy Scouts helped with these classes. It is best if there are teachers or helpers present in the ratio of one person to each two children.

We had two cars and drivers for instruction in driver education. This instruction was available to all 14 years and older. We had several adults in these classes.

Summer art classes for all ages proved to be very popular. Academic courses offered were typing and American History. It is necessary that we fulfill the requirements of the state department in order to give credit in these and other academic credit subjects.

In our attempt at evaluation of the summer program we used several devices. Letters were sent to 200 random samplings of the parents of children participating. Approximately 50 per cent return brought us almost unanimous approval of the summer school. Valuable suggestions were also received. Board of education members, through their contacts made by teachers and the superintendent with parents during the summer school and soon afterward, indicated satisfaction and approval of the program.

At the conclusion of the session all participating teachers were asked to give suggestions for improvement. Chief among the suggestions were (1) start sooner with plans in the early spring (2) homogeneous classes (in some cases particularly gymnastics the ability range was far too great) and, (3) as usual, smaller classes. We feel that for 1961 we are avoiding many of the mistakes that we made last year and that we can have a much better summer school.

In 1961 we are offering all the subjects taught in 1960. In addition we are offering, subject to sufficient enrollment, classes in pre-college English (with emphasis on composition), speech therapy, physical fitness for boys and girls, woodwork, metalwork, local travel tours, camping, pre-kindergarten classes, how to study, and others as to demand.

Summer school should be fun. It should also be instructive. We think that it can be both. ■

How to Explain Your English Program

SYDNEY SALT

Dr. Salt is director of instruction of the Tenafly Public Schools, Tenafly, N. J.

Year after year, school officials receive dozens of requests for information about subjects being taught in the local schools. When the requests are from professionals, the answers are usually provided in the form of curriculum guides of "pedaguese" easily understandable by those of our breed. But let a citizen ask a question and the professional sometimes frustrates the listener and himself in the effort to provide a simple answer. In Tenafly, efforts have been increased to provide written answers in layman's language, anticipating questions to be asked by the public. This is not by accident.

In 1957, after 33 consecutive victories, the local school budget was defeated. The board of education investigated. One of the major reasons for the poor public support seemed to be that the average citizen lacked an understanding of the work of the schools. Since then, the board operates an expanded information program. It publishes a newsletter, sends out press releases, provides speakers on the budget, etc. — as do many other boards.

A brochure providing general information about the district met with sufficient success to encourage the development of brochures explaining areas of the curriculum. The latest effort is intended to deal with questions surrounding the English program. Upon investigation, it can be found that very few school districts have gone this far in providing public information. No arguments have been given against the desirability of having such material prepared. The block appears to be one of understanding how to get the job done, particularly with few personnel available to assist.

It was done with the help of approximately thirty teachers and school administrators, who provided information for the director of instruction to assemble in readable form. The material then was submitted to a citizen well versed in the art of writing for the general public about education who re-wrote the material. The result was passed by the director to the superintendent of schools, for review and then presented to the public.

Since 1957, each budget has passed by at least six to one. It is not meant to imply that a comprehensive public information program is the only route to budget approval, but is believed helpful and an important shared responsibility of the board and the professional staff.

As samples of the type of information that can be supplied, portions of the English brochure appear below.

The content deals first with some of the philosophy on which the program is based:

"The study of English in the Tenafly public schools today is more often called 'language arts' and with good reason, for it includes reading, writing, grammar, speech, listening skills, dramatics, and library work. . . ."

"What are the goals of such a program? . . . Study is directed toward developing ability to communicate ideas as clearly and effectively as possible — both in writing and speaking, to read and listen with relative ease and comprehension, and to grow in an appreciation of literature, including drama and poetry. Creative and critical thinking is greatly encouraged."

The text is organized by grade and subject to show the sequence of experiences planned for students. Some excerpts:

The Elementary Schools

". . . Kindergarten teachers provide experiences in speaking, hearing, reading and writing the English language. 'Showing and telling' about one's own doings, singing, and learning rhymes and poems are part of the program. Printing, or manuscript writing, is also eagerly tried in the kindergarten . . ."

"At the fourth, fifth and sixth grade levels, library and elementary research skills are emphasized. Individualized reading is continued. Book reviews and other reports serve as points of departure for teaching other subjects, as well as developing a command of the language. . . ."

The Junior High School

"Spelling, vocabulary, and composition skills are developed further. . . . Intensive study of grammar covers parts of speech, sentence structure, punctuation, conjugations, phrases and clauses. . . ."

"In the seventh and eighth grades, language arts is taught in relation to social studies. . . . Thus, when a class is studying the Constitution of the United States in history, the content is also studied for language purposes — vocabulary, word usage, speech, formal grammar, and appreciation. . . ."

The High School

". . . All sophomores study American literature, including a number of novels from Howells to Hemingway. Advanced classes also study Emerson, Thoreau and Melville. Juniors study English literature by surveying Chaucer, Shakespeare, the romantic poets and 19th century novelists. Seniors study world literature from Greek drama to the present. This includes an increased concern with Russian literature. . . ."

"Recently, more seminar and honors classes have been added to each grade level. . . . Students discuss themes . . . such as The Search for Self, Man and Society, and The Individual in Crisis. . . ."

Other sections of the brochure deal with library services, special teachers, guidance resources, testing programs, school publications, a survey of graduates, dramatics, and electives as related to the English program.

In summary, it may be noted that this brochure has provided a valuable lesson for the professional staff as well as the public. ■

The School Plant

A school that's easy to maintain, spacious, and yet economical to build is featured in this month's SCHOOL PLANT section. The Conrad Weisner Junior-Senior High School, located in Robesonia, Pa., cost $2,112,000 to construct and accommodates 950 pupils.

Also featured in this section is the South East Junior High School in Iowa City, Iowa, an unusual school designed for an irregular site which varies in elevation.

Whether to remodel or build anew is discussed in this month's SPECIAL REPORT: Modernization Versus Replacement. How the Crown Point, N. Y., school district solved this common but often perplexing problem should be of interest to all our readers.

Other articles cover an auditorium addition, a group of Notable New Schools and how wood proved to be an economical school building material in Arcata, Calif., all of which are designed to present information of value to school officials and board members.

The Conrad Weiser

JAMES F. SHANKWEILER

Dr. Shankweiler is supervising principal of the Conrad Weiser Area Schools in Robesonia, Pa.

Spaciousness and maintenance economy are features of the Conrad Weiser High School in Berks County, Pa. Architects Elmer H. Adams & Associates of Reading designed the $2,112,000 building.

Economy of cost and spaciousness are the noteworthy features of the new Conrad Weiser Junior-Senior High School in Berks County, Pa. Planned with facilities to accommodate 950 students from grades 7 through 12, the building was occupied in January, 1960.

The main concern of architects Elmer H. Adams and Associates, Reading, Pa., the school staff and the Joint Board was to plan a building that would provide adequate space, yet, at the same time, one that would be within the ability of the district to finance. As is common in many building programs, compromises had to be made to reduce costs to a figure that would be acceptable to the community. Such compromises were made in materials and design, but space was considered paramount. The area, therefore, remained basicly the same as in the original plans. Neither was it felt that the compromises made in structural materials were poor choices in terms of long-term maintenance and investment. The building was thought to be most satisfying in both its esthetic and functional qualities.

Most important in the entire structure are the 23 regular classrooms where English, mathematics, social studies, languages, geography, and health are taught. Six of these are large, self-contained type rooms in the junior high wing. The rooms have work units, ample chalkboard and bulletin board space, and group work tables. English classrooms have corner platforms to encourage and promote oral expression.

Five rooms comprise the science wing, two of which have been assigned for general science instruction. Among other facilities in the biology room are a terrarium and an aquarium. Physics and chemistry rooms are designed to serve 24 pupils each in a combined laboratory and lecture area. The perimeter type laboratory arrangement is employed.

Commercial students are trained in three large rooms for bookkeeping, typing, and office practice. In the latter area, pupils learn to operate many types of office machinery. Members of the Future Business Leaders of America club are in complete charge of the school store and the school bank.

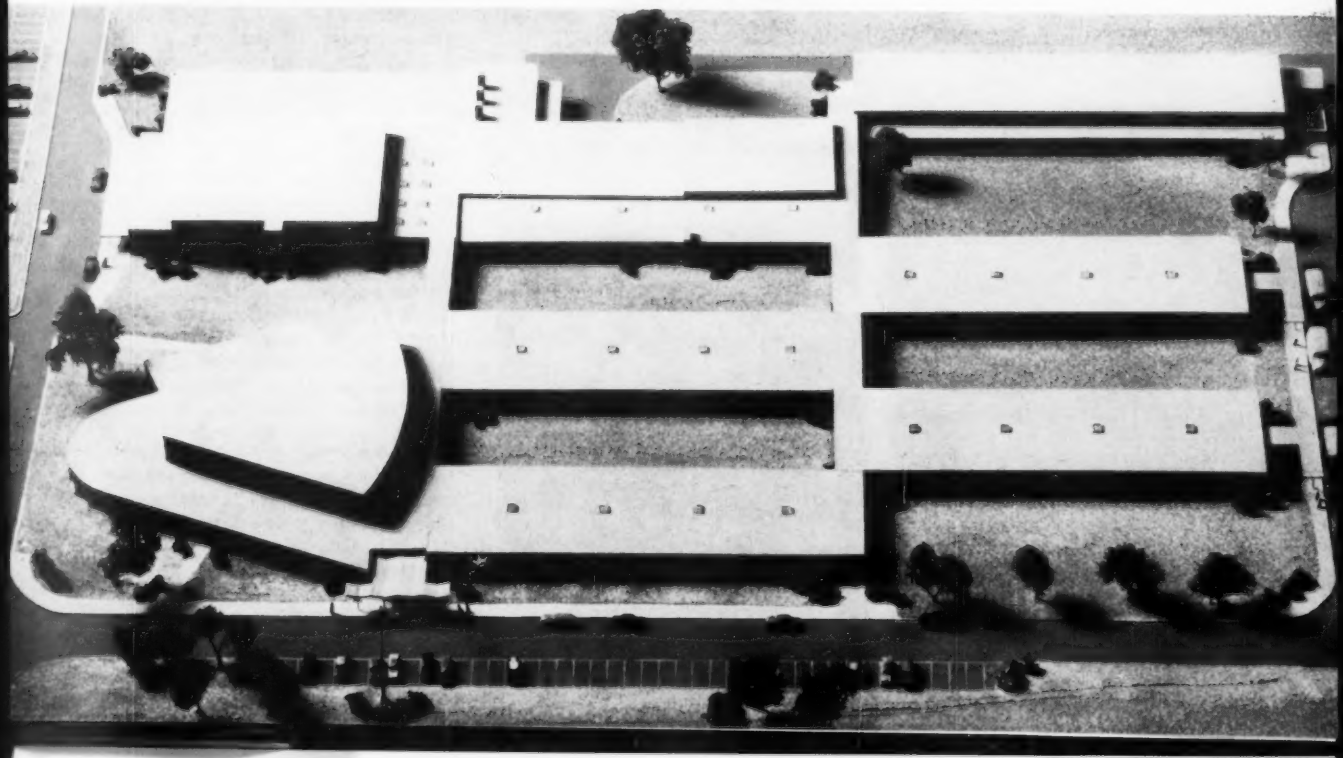
Modern shops for the industrial arts and agriculture courses provide excel-

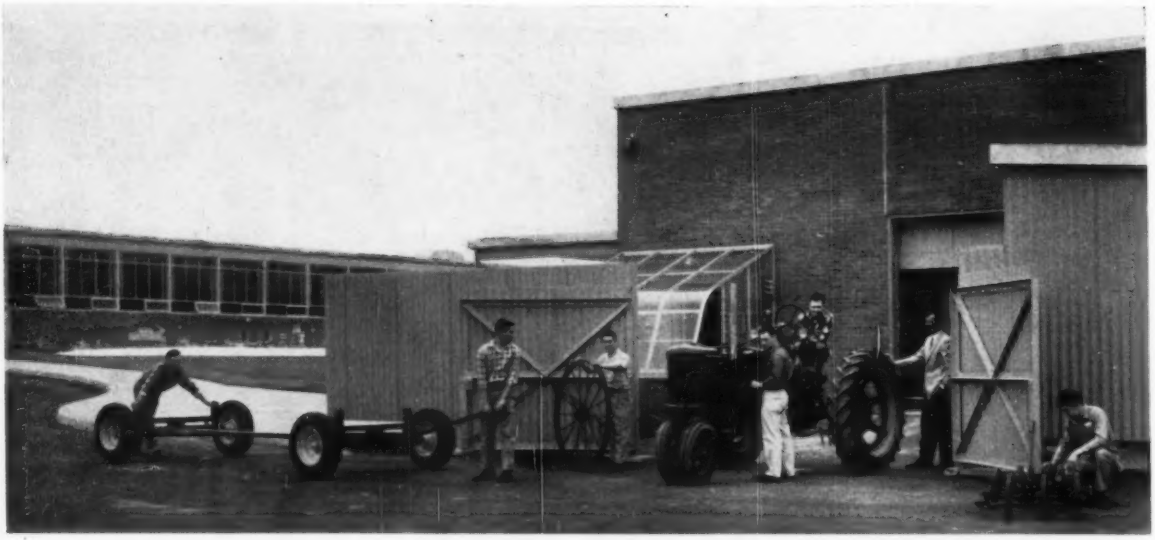
High School

The school's gymnasium, above, one of the largest in the county, has a seating capacity of 1200.

At left is the school's auditorium, which has a seating capacity of 1060.

Shown below is the architect's scale model of the Conrad Weiser Junior-Senior High School.





This is the argiculture course teaching area which covers 3250 square feet. Included are a shop area, a classroom, an outdoor shed and a small greenhouse.

lent facilities for training in wood shop, welding, graphic arts, and metal work. The planning or drawing area serves a 30-student class. The agriculture course is taught in an area which includes a shop, a classroom, an outdoor shed and a small greenhouse.

The homemaking suite contains two general purpose rooms and a home management area. A four-unit kitchen is installed in one general purpose room and a three-unit kitchen in the other. In the home management area pupils work with a kitchen, dining room and living room combination. Also included is a grooming area with a workroom.

Instrumental and vocal music are taught in a tiered semicircular room. Four practice rooms are adjacent to offices used by the music instructors.

The art room is divided into three areas — drawing, ceramics and crafts. Features of this area are an island sink, sky lights, display boards and cases.

The seven school districts involved in the joint area have been keenly interested in maintaining schools which would serve as centers for community activities. Local civic groups, PTA's and youth groups were accustomed to using the schools to a large degree in carrying out their functions. Therefore, the new school was also designed to serve these community interests. A library, auditorium, all-purpose room, gymnasium, cafeteria and special classrooms adequate in size to accommodate community activities became important points for discussion during early planning.

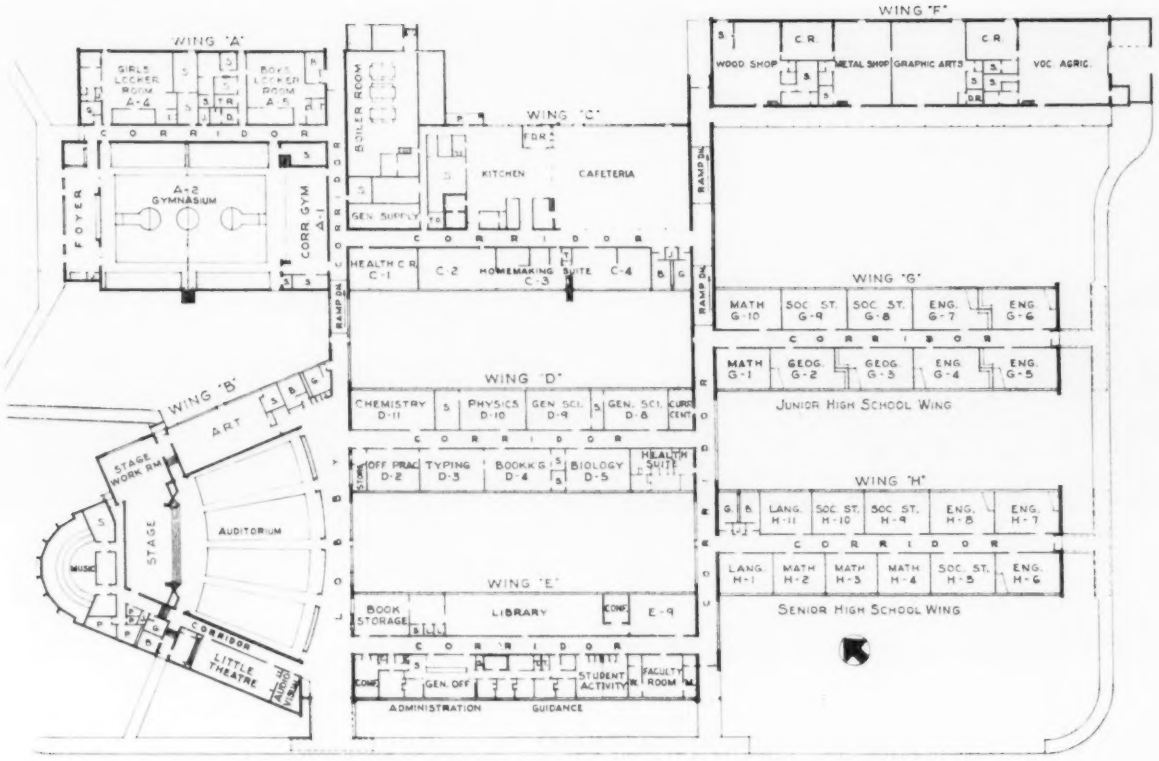
Seating capacity in the school auditorium is 1060. Risers directly in front of the large stage provide ample space for choral performances. Bordering the stage to the north is a workroom for preparation of scenery and properties. House lighting, amplification and curtain adjustment are operated from a central control station located just off the stage. An organ has been installed for use in assemblies and various public programs.

Across the corridor to the left of the auditorium is the "Little Theatre," an inclined room, seating 104, facing a small stage. A kitchen unit and a storage compartment for audio-visual equipment are in the rear of the room. Evening meetings for small school and community organizations are held here. Daytime use includes audio-visual teaching, group testing, and rehearsing dramatic groups.

The school library, located in the administration wing, accommodates 70 pupils. Shelves for 12,000 volumes have been provided. In addition, a workroom, two listening booths and a student conference room are included.

The school gymnasium, one of the largest in the county, has an 84 by 50-foot regulation basketball court and a seating capacity of 1200. An electric gate has been installed to divide the floor for simultaneous use. Neighboring the main gym is a corrective area with folding doors to divide the room into three teaching stations. Equipment includes a chinning board, wall weights, stall bars and various types of heavy apparatus.

The school library, located in the administration wing, covers 2000 square feet and accommodates 70 pupils. Shelves for 12,000 volumes have been provided. In addition, a workroom, two listening booths and a student conference room are included.



Above is the floor plan of the Conrad Weiser Junior-Senior High School in Robesonia, Pa. Elmer H. Adams, Reading, Pa., architect, designed the school.

Boys' and girls' locker rooms open to the atheletic fields in the rear. These rooms include glass enclosed teacher offices.

The school cafeteria is one of the most attractive and versatile areas in the building. The dining area seats 325. Three serving lines accommodate 950 persons. Besides its daily use as a dining room, the cafeteria is being tested for other uses. It is the site for dances, banquets, and other social affairs where refreshments are served.

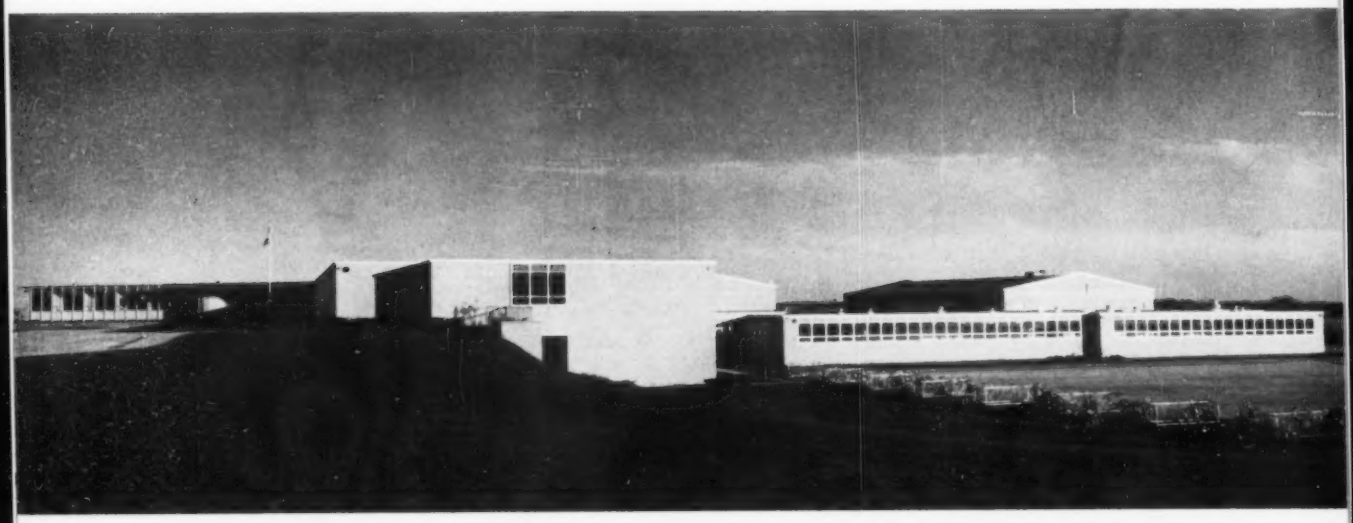
A faculty dining room is located in the northwest corner of the cafeteria. A room for the professional staff in the administration wing provides rest rooms, a furnished sitting room, and a small kitchen unit.

A full-time guidance counselor occupies an office in the administration wing to which two small conference areas are attached.

In the school's health quarters, a waiting room leads to the area where audiometer and ortho-rater tests are administered. A fully-equipped physical examination room with two dressing booths leads into the dental area. A modern dental chair and an autoclave are located in this room. The suite also includes an infirmary of two rooms where four beds may be placed. Two full-time nurses will serve the entire school area. ■

Costs
bid cost, $2,112,008
capacity, 950
square feet, 140,000
cost/sq. ft., $15.08
cost/student, $2,223
Facilities
classrooms, 26
offices, 9
art room
commercial, 3
laboratories, 5
library
music room
industrial arts shops, 4
mechanical drawing, 1
teachers' rooms, 2
auditorium (seating 1060)
gymnasium (seating 1045)
cafeteria (seating 325)
Construction
exterior design: "Domino" design, continuous fenestration, brick masonry spandrils, aluminum trim
construction: incombustible
roof: built-up on poured gypsum deck
corridor finish: asphalt tile, glazed structural tile wainscot, painted block walls, acoustical tile ceilings
classroom finish: painted concrete block walls
floor covering: asphalt tile, ceramic tile in toilets
auditorium finish: concrete block painted, brick and perforated board walls, asphalt tile floor
gymnasium finish: wood floor, painted block above glazed structural tile wainscot
lighting: fluorescent
heating: hot water, forced air

Several girls relax in the home management area of the homemaking suite. Also included in the suite are two general purpose rooms equipped with unit kitchens.



South East Junior High School in Iowa City, Iowa.

Design for an Irregular Site

ROBERT STRUMPFER

Mr. Strumpfer is with the architectural firm of Louis C. Kingscott and Associates of Kalamazoo, Davenport and Indianapolis.

Confronted with the problem of designing a school for an irregular site which varied in elevation, architects of the new $1,031,612 South East Junior High School in Iowa City, Iowa, created a two-level academic wing with ground floor entrances at each level and a grouping of special areas around a court yard on the lower level.

The northern portion of the site is approximately 15 feet higher than the remainder of the terrain. By situating the structure at the crest of the hill within easy public access from adjacent streets, architects-engineers Louis C. Kingscott & Associates, Inc., of Davenport, Iowa, achieved maximum use of flat areas of the site for parking, service areas, playgrounds and future development of other facilities.

The building is deceptively large. Because the academic wing is built into the slope, the lower level is not apparent from the street. On the first floor of this wing are three classrooms, two large homemaking suites, two science rooms, storage and vault areas, an audio-visual room and a room that is long enough to permit archery practice during physical education classes.

The second floor of the academic wing contains a dozen regular classrooms, the typing room with 30 stations, a library which will double as a classroom when library science is taught in connection with language arts, a speech room complete with stage and the administrative area adjacent to the main entrance and foyer.

Along the east side of the courtyard on the lower level is the gymnasium, which is flanked on the north and south by locker rooms. Next to the gym are the vocal and instrumental music rooms with four individual practice rooms and an ensemble room.

The south unit of the building houses the cafeteria, an area which can quickly be changed from a dining room to an auditorium. Along the west side of the center court is the wing unit containing the two industrial art shops — separated by a drafting room — and the arts and crafts rooms.

The school is designed to accommodate 725 pupils. It was awarded a citation by the American Association of School Administrators, and plans for the school were exhibited at recent AASA conventions in St. Louis and Philadelphia.

Superintendent of schools in Iowa City is Buford W. Garner. ■

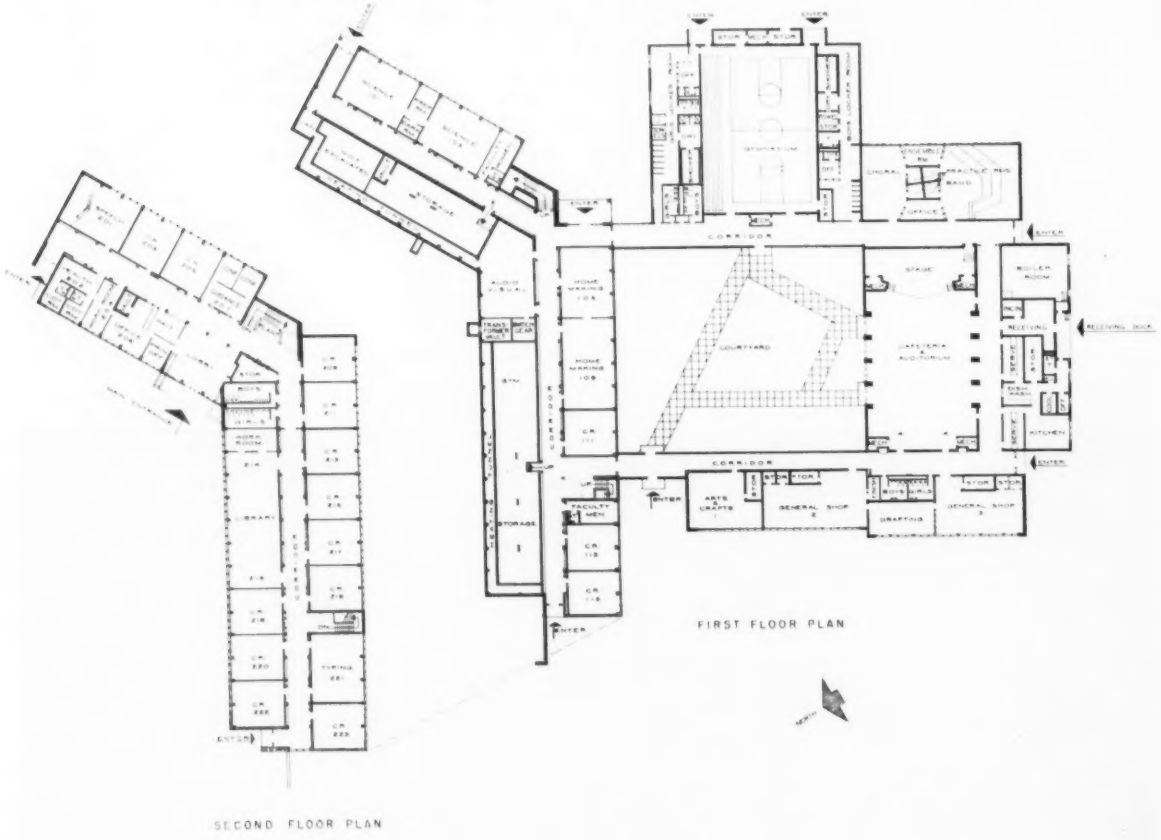
Facilities
offices, 2
classrooms, 15
crt room
commercial room
laboratories, 4
library
music, 2
industrial arts, 2
mechanical drawing
clinic
teachers' rooms, 2
cafetorium (seating 500)
gymnasium

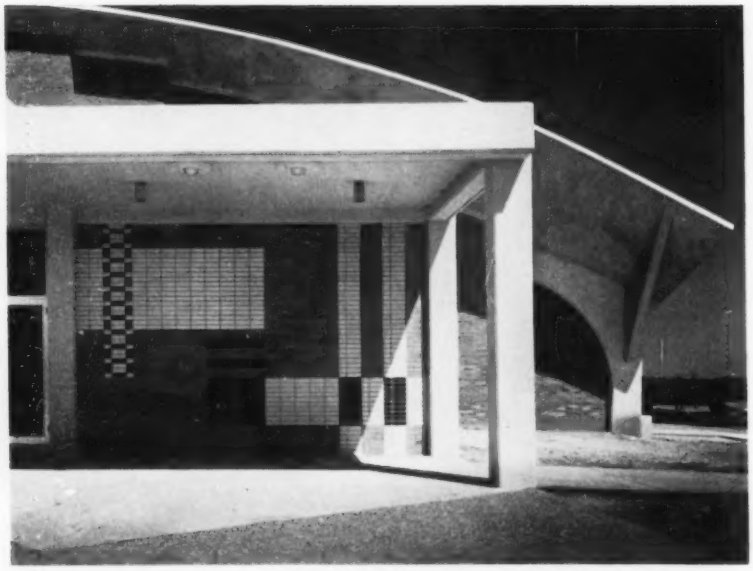
Costs
bid cost, $1,031,612
capacity, 725
square feet, 78,448
cost/sq. ft., $13.89
cost/student, $1,503

Construction
exterior design: window wall and masonry
exterior facing and trim: glass and insulated panels, face brick, aluminum trim
construction: two-story, reinforced concrete; one-story, steel
roof: P & G, 20-year bond
corridor and stair finish: ceramic, vinyl asbestos
classroom finish: paint on lightweight block
restroom finish: glazed structural units
lighting: fluorescent
heating: low pressure steam, unit ventilators

The main entrance to the school is pictured at the left. Below is the main stairway in the two-story section.

Below is the floor plan of the South East Junior High School in Iowa City, Iowa, which was designed by Louis C. Kingscott and Associates of Davenport.





Auditorium

Abstract murals done in colored glazed brick flank each side of the entrance doors.

Architect Dean E. Hill selected a curved folded plate method to construct the long unsupported span roof for the 1600-seat Frayser High School auditorium in Memphis, Tennessee.

Development of a logical and economical roof system is the main feature of the new auditorium addition of Frayser High School in Memphis, Tenn. Architect for the project was Dean E. Hill and Associates of Memphis.

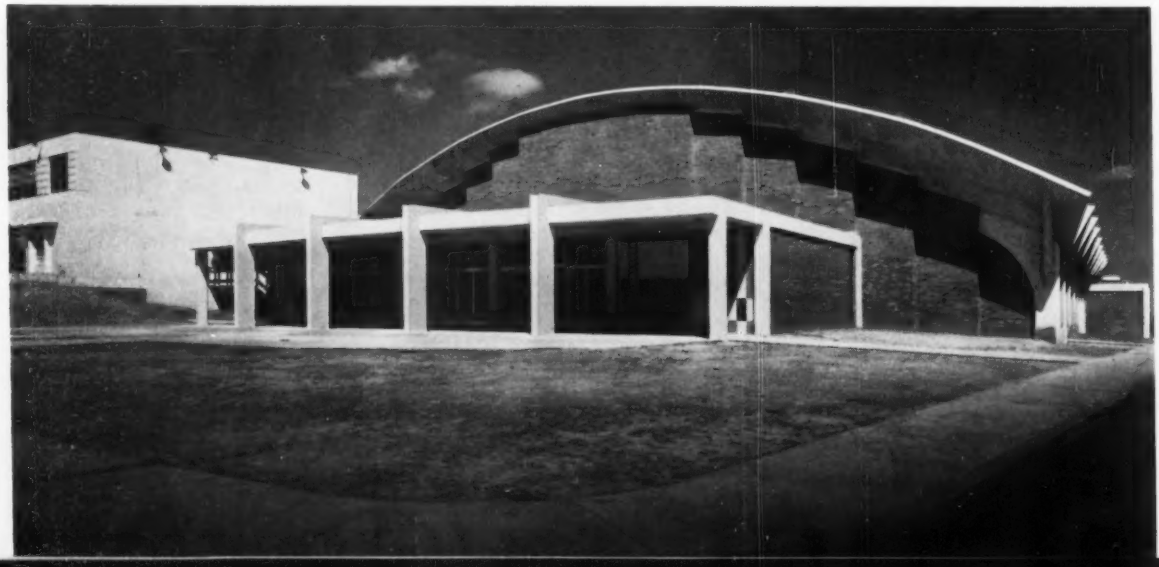
A required seating capacity of 1600 students dictated a long unsupported span, bearing only on the side walls or independent structural columns. Several methods were considered, but the curved folded plate method was selected. This concrete slab, varying from a maximum of six inches to a minimum of four inches at the peak brought economies in (1) height of exterior masonry walls (2) elimination of interior suspended ceilings (acoustical plaster is sprayed on alternate folds of the ceiling) (3) possible cone shaping of the auditorium for best acoustical results.

The proposed extension of the roof all the way to the ground in quonset hut style was vetoed by the school board as it felt the temptation for boys to run up and down the roof would be too great. A sprayed white plastic roofing material was used over vermiculite insulation for the finish roof treatment.

Present plans call for heating only, but because of the wide use of the building for community activities, equipment and duct layout were installed for future air conditioning. Present heating is by forced hot air from two units: one at the stage area and the other from the lobby area.

Aluminum entrance doors at the front lobby are flanked on each side

The Frayser High School auditorium is shown below. Designed by Dean E. Hill of Memphis, the auditorium seats 1600.



Addition

DEAN E. HILL

Mr. Hill heads the architectural firm of Dean E. Hill and Associates, Memphis, Tenn.

This view is from the rear of the auditorium and shows the stage area.

by abstract murals done in colored glazed brick. The entrance lobby has a monolithic terrazzo floor, painted concrete block walls and the only suspended acoustical ceiling on the project.

The auditorium itself has nine and one-half inch thick face brick walls, exposed brick on the exterior and interior with interior cavity filled with loose vermiculite for proper insulation. Aisles are covered with vinyl plastic flooring and the alternate ceiling panels of acoustical plaster (for proper sound control) accent the exposed folded plate ceilings.

The large wood covered stage is faced on the front with a random pattern of ceramic tile. The stage itself is designed to permit the addition of wood steps at the front for the use of choral or vocal groups. An interesting plug-in panel stage lighting system is being used by the school board on this project. Unable to afford a complete recessed reostat controlled system for all auditoriums, the board has now installed this plug-in panel in several schools. When a particular school plans an elaborate production, it simply applies for the use of a portable reostat control panel, plugs it in and has all possible lighting variations.

Adjacent to the stage is a large storage area for flats, scenery, etc., dressing rooms for boys and girls, and the mechanical equipment area which makes it possible to use the stage without heating the entire auditorium.

Because the auditorium is part of a general contract, the exact cost figure is unavailable. However, the builders have estimated the cost at approximately $260,000. ■

Cost
bid cost, $260,000 (approximately)
capacity, 1620
square feet, 19,921
cost/sq. ft., $13.62
cost/student, $167.50

Construction
exterior facing and trim: face brick with aluminum trim
construction: structural concrete
roof: concrete curved folded plate
floor covering: corridors, vinyl tile; lobby, ⅝ in. terrazzo
ceiling: sprayed acoustical plaster
walls: exposed brick
lighting: suspended incandescent
heating: forced air and hot water convector
insulation: two-inch poured vermiculite on roof; loose vermiculite in cavity walls

Products
heating: ventilating units, Marlo; temperature control, Barber-Coleman
electrical: program clocks and fire alarm systems, IBM
sanitary: flush valves, Sloan; urinals and wash bowls, American Standard
general: seating, Griggs Seating Co.

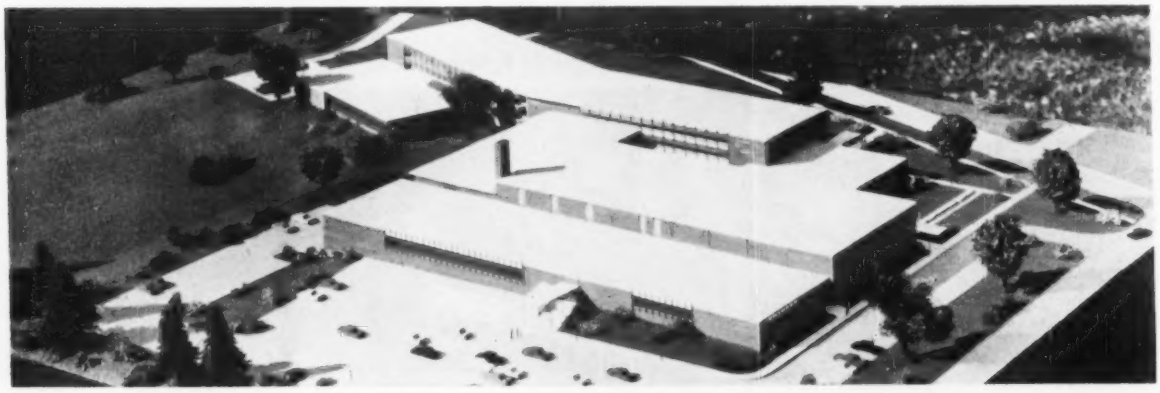
An intricate pattern of lights is displayed at the back of the auditorium.

Porcelain enamel panels comprise the gymnasium roof that forms the "cap" atop this new addition to Public School 236 in Brooklyn, N. Y. The $1,500,000 addition was designed by New York City architects Samuel Paul and Seymour Jarmul. The city's Board of Education architect is Michael Radoslovich. The "cap" is formed by the new gymnasium that extends above the building's main roof. The gym, plus a 422-seat auditorium located beneath it on the first floor, forms the central core of the structure. The addition will boost the school's regular classrooms to 31. The new building is scheduled for an October, 1962, occupancy.

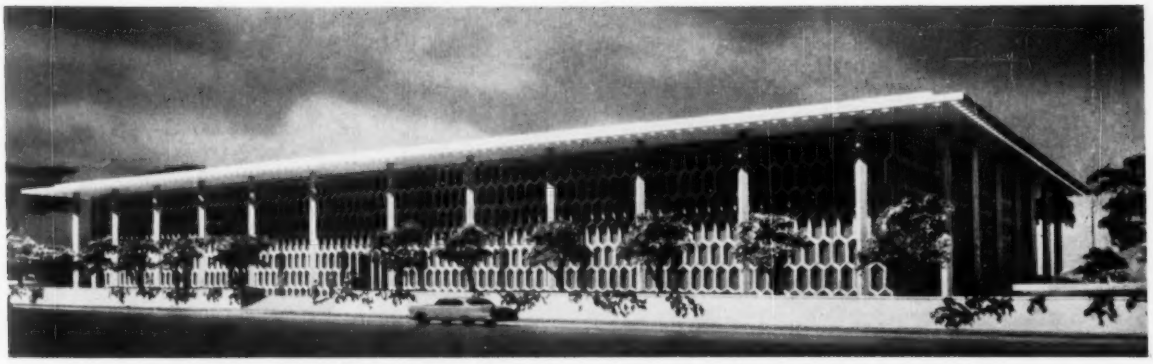
This is a view of the open courtyard of the Oakcrest High School in Mays Landing, N. J., which was completed in September, 1960. The Ballinger Company of Philadelphia, Pa., architects-engineers, designed the 1200-student school. During the planning stage special attention was given to the preservation of trees and the natural environment of the site. Cost of the school was $1,785,334.

Notable New Schoolhouses

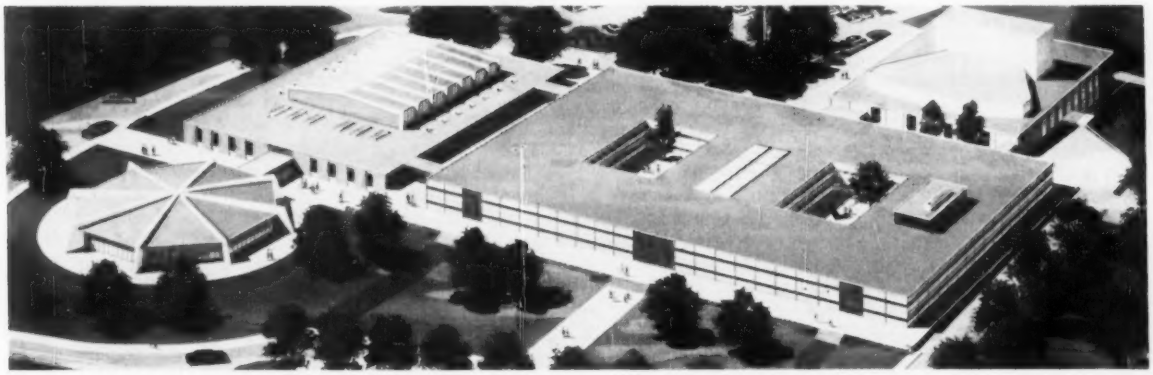
school building scrapbook



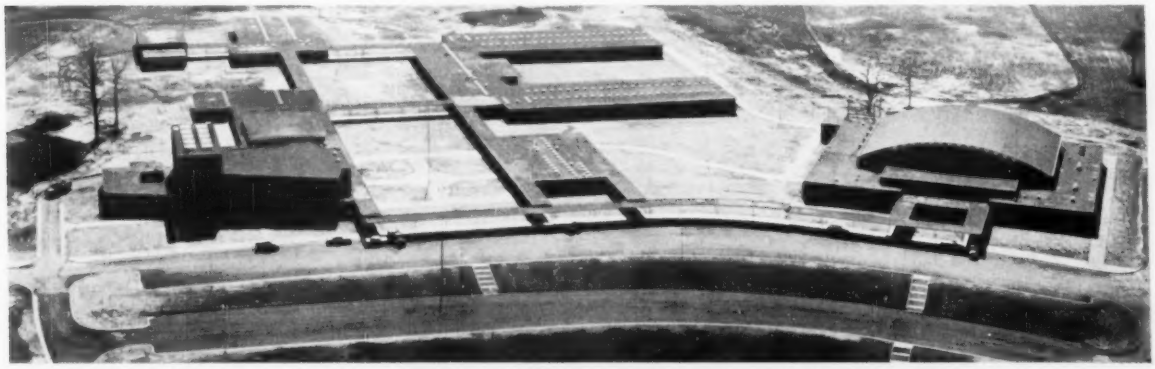
Additional instruction time is one of the attendant benefits of the compact design for the 1800-student E. L. Bowsher High School in Toledo, Ohio. John H. V. Evans, of Samborn, Steketee, Otis and Evans, project engineers and architects, designed the tightly co-ordinated single building, most of it two and three stories high, which cuts the time required for students to move from room to room during class changes. This makes an average of 38 extra hours available for instruction per student. Total cost is $3,174,600 or $14.61 per square foot. The opening is set for September, 1962.



This three-story block-long building, designed by internationally-famed architect Edward Durell Ston of New York City, is the University of Chicago's new Center for Continuing Education. The building was made possible by a $2,333,333 grant from the Kellogg Foundation. The colonnaded structure going up on the "Cultural Mile" of the University of Chicago campus will provide a meeting place for world-renown scholars in a university setting to communicate the latest advances in knowledge to leaders in other fields. Construction for the $4,000,000 air-conditioned building is scheduled to be completed by the fall of 1962.



A school built for flexibility is the $3,800,000 Rippowam Senior High School in Stamford, Conn. The structure was designed by the New York architectural firm of Urbahn, Brayton and Burrows. A feature of the school is the ease with which oversized classrooms and multi-purpose facilities can be adjusted to utilize new educational techniques. The school, which can accommodate 1600 students, consists of three major units. The octagonal-shaped wing to house a five-lane swimming pool is shown on the above perspective but is not being built at this time. Stamford Superintendent of Schools is Joseph J. Franchina. The school will be opened in September, 1961.



The new $2,145,127 Science Hill High School was recently opened in Johnson City, Tenn. The school is built on the campus-style plan, consisting chiefly of six separate buildings with covered connecting walks. Designed for a normal 900 student body, it is electrically heated — believed to be the largest school in the world so heated. Architect Leland Cardwell designed the school, which was built on a 40-acre site. The school contains 27 classrooms, a library, cafeteria, gymnasium, auditorium, science laboratories, home economics, music and business education facilities plus a general shop and administrative offices.

special report

Modernization Versus Replacement

FRED D. WALSH

Mr. Walsh is supervising principal of Crown Point Central School, Crown Point, N. Y.

Authorities in Crown Point, N. Y., faced the problem of whether to expand school facilities or wait with the hope that proposed district reorganization would eliminate overcrowded classrooms.

Many relatively small high schools are faced with the dual problem of expanding school enrollments and the need for a more efficient and economical school organization, which generally means incorporating two or more small school districts into one large district. In some cases, consolidation plans create additional problems that tend to delay successful reorganization efforts for many years. In the meantime, lack of adequate space often causes unwieldy class loads, poor teacher morale, and a general deterioration of the instructional program.

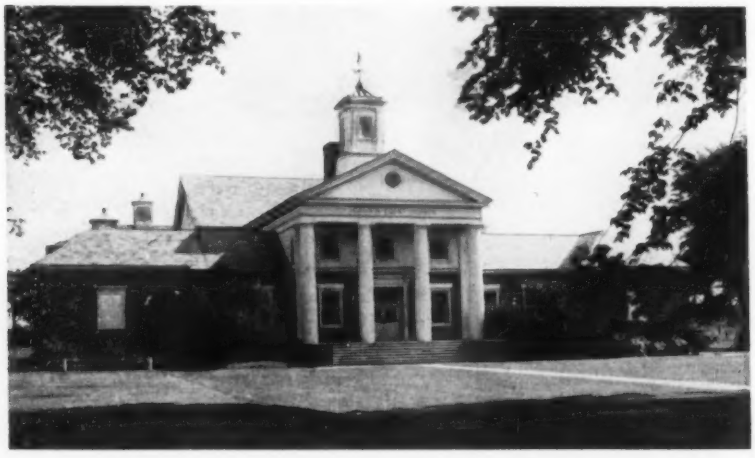
The board of education, faced with the responsibility of providing classroom facilities, must decide not only the advisability of new school construction, but also the extent of any proposed building program. Planning must take into consideration the estimated length of time before a reorganization program may become effective, the possibility of a different type of school district reorganization than currently proposed, and the possibility of the school district remaining autonomous.

Typical among these districts is the Crown Point Central School located in northeastern New York State on Lake Champlain. Rich in history since before Revolutionary War times, the residents have been leaders in helping to pioneer educational programs. The village and some of the adjoining rural common school districts were organized as a central or consolidated school district in November of 1925. This new type of administrative unit began operating in September, 1926, and common school districts in the township maintaining one room schools gradually were annexed to the central district. By June, 1936, all of the 12 common districts within the township at the time of centralization had been absorbed.

A new school building was completed in 1928. The 200 pupil capacity structure served both elementary and secondary pupils. For many children this was the first time a high school education was readily available. With the gradual closing of the rural schools in adjoining districts, slow but steady growth of the centralized school continued. By 1935 it had become necessary to build an addition at the rear of the original building. This addition also permitted enrichment of the secondary program to the extent of providing a new science laboratory, a library, a commercial education suite, and the use of other space for a homemaking education program. The slow, steady growth pattern continued. After World War II the district again faced severe space problems. Heavy teaching loads were increased, and curtailing of the program resulted in more pupils dropping out of school prior to graduation.

Because of sharply rising costs of

The original Crown Point Central School had been the pride of the community for many years. The style of architecture made economical planning difficult.



This view shows the general orientation of the industrial arts shop to the rest of the school plan. The industrial arts building is connected to the main building by a paved asphalt walk.

school operation during the early fifties, studies were begun to increase the efficiency of the school tax dollar. The New York State Legislature in 1956 authorized a state-wide study of school districts. The purpose of the study was to bring the "Master Plan for School District Reorganization in New York State"[1] up to date. At the time this study was being conducted, the Crown Point Board of Education was planning to erect a second addition to the school. The Citizens' Committees had assisted in planning a $695,000 project to provide ten classrooms including industrial arts facilities, a cafeteria and and kitchen, and a combination auditorium-gymnasium. Just before the proposal was to be submitted to the electorate for approval, all activity was halted pending the study of the state's revised master plan.

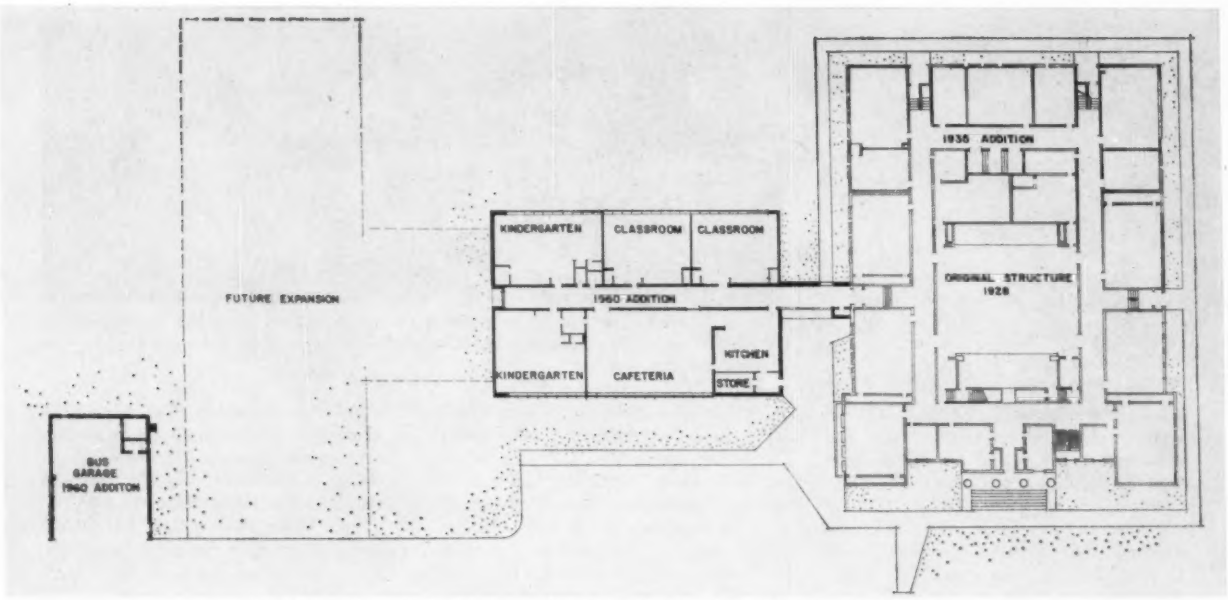
The study recommended that the two hundred square mile Crown Point Central School District be included with three other area schools to form a new, larger school district. It was proposed that secondary school facilities be located at Ticonderoga, the approximate center of the proposed reorganizing district. High schools in the adjoining districts, including Crown Point, were to be dissolved and the physical plants converted for use as elementary school facilities. Representatives from the four school districts — Crown Point Central School, Hague Central School, Putnam Central School, and Ticonderoga Central School — began a year-long study of the recommended proposal. The residents of the smaller districts, including Crown Point, tended to oppose the reorganization recommendations. Some felt that the transportation distances were excessive. Some considered the loss of the high school or the loss of local control dissatisfactory. Others felt that their local facilities were superior, or that their program would not be materially improved in the proposed merger. The Crown Point district was the only one facing a critical classroom space shortage. It appeared that centralization of towns in the area was to be much more difficult than the centralization of the one room schoolhouse districts within a town. A traditional section of the country, progress, although steady, had had a tendency to be slow.

The Crown Point Board of Education was faced with two major problems. Pupil growth had increased class loads to a point of seriously curtailing the effectiveness of the school's program. The possibility of an eventual merger made school construction plans uncertain. The board had to decide how much of a construction program, if any, to propose to the residents of the district.

In New York State many independent school districts in a given area may operate under the general supervision of a district superintendent of schools. These professional men offer valuable service to the school systems under their guidance. They extend the efforts of the State Education Department specialists to the area schools and are able to offer a close liaison service between the local school district and the education department. The superintendents are often executive officers of boards of co-operative educational services. In this pro-

[1]Master Plan for School District Reorganization in New York State — Revised, The University of the State of New York, The State Education Department: Albany, 1958.

Classroom improvements in the original building included new fluorescent lighting, asphalt tile floors, resurfacing of blackboards, a sound system and new desks.



This floor plan of the Crown Point Central School shows the original structure, the 1935 addition and the 1960 additions. Architects Sargent, Webster, Crenshaw and Folley designed the latest addition.

gram, smaller school districts are encouraged to participate in services that they would otherwise be unable to afford.

In the Crown Point District the board of education, working closely with the State Education Department and the area district superintendent of schools, Edmond Yandon, explored many different answers to its problems. Both the board and Superintendent Yandon felt that the primary responsibility was to the pupils presently in the school system. Citizens' Committees met and were advised of the problems and the limitations of any proposed construction program. The architectural firm of Sargent, Webster, Crenshaw and Folley prepared drawings illustrating a number of solutions. After conferences with state education specialists, an acceptable plan began to evolve.

It was decided to construct enough facilities to reasonably reduce class loads and to enrich the secondary program to the extent of providing industrial arts subjects. It was also decided to avoid construction that would tend to be detrimental to future reorganization attempts. With the latter limitation in mind, planning was influenced by three major objectives: First of all, the existing facilities were to be improved as nearly as possible to present day standards. Second, the cost of the overall project was to be kept at a minimum level. Third, the construction program was to be planned so that all phases would be as compatible as possible with future school programs when and if school district reorganization attempts became a reality.

The success of large scale reorganization plans involving several school districts may be contingent on the relative condition of the physical plants. Few districts are eager to be a part of a merger knowing that they must shoulder the burden of expensive reconstruction projects that may have to be undertaken. With this in mind, the Crown Point Board of Education authorized the architect to include plans for the renovation of the 32 year old original building and the 25 year old first addition.

Modern electrical demands had placed additional strain on the outworn wiring system. The home economics suite and the cafeteria kitchen, for example, used nearly as much electricity as two average-sized homes. A new, four-wire underground entrance cable replaced the old overhead service. The original building was rewired, using the original conduit insofar as was practical. New fluorescent lighting was installed at teaching stations and in offices throughout the entire building. A new exit light system was installed, and a battery operated emergency lighting system was incorporated for use in the gymnasium-auditorium. Wiring leading to all wall receptacles was re-checked, and new wall plugs were installed. A modified sound system utilizing two channels and offering two-way communication was set up.

The original coal fired boilers, installed in 1928, had to be operated at capacity after the first addition was completed in 1935. After 25 years of heavy service, breakdowns had become frequent during the heating season. The absence of effective temperature controls made classroom heating extremely uneven. The advantages of the package type boiler were studied by the board. It was decided to install two oil burning units of two million BTU's output each in what had been the old coal bin. These new units were coupled with modern air-operated automatic temperature controls, and the building was divided for more efficient zone operation. Utilizing oil burning equipment freed two otherwise unavailable areas. The old ash storage room was converted to a storage vault for school records and supplies. The former large boiler room, in addition to use as a general maintenance area, was also available for use as a music practice room, storage area for individual teachers, and receiving area for custodial supplies. Often overlooked in building renovation are doors and hardware. Plans provided for the replacing of worn exit doors before the new panic bolts were installed. Classroom doors were fitted with new locks masterkeyed to those in the new addition.

The original structure, first used in 1928, was the pride of the community. Of colonial architecture, the building had four fluted 25 foot pillars framing the main entrance. The intricate design of brick laid with double Flemish bond carried the colonial theme to the steeply

pitched, many-valleyed roofs. Marble steps, trim and plaques completed the design of the ivy-covered building. Unfortunately, this type of structure did not lend itself readily to economical architectural planning.

The cost of adding second floor rooms seemed prohibitive from the standpoint of strengthening existing ceiling joists and raising the roofs. The cheapest and most efficient alternative proved to be a separate one-story structure. Good taste indicated a harmonizing structure rather than an attempt to copy the lines of the original building. The addition was connected to an exit in the main building by a 30-foot enclosed passageway. By this scheme light was not cut off from the classroom adjacent to the addition.

The passageway was designed to serve both as an additional exit and as a loading or service area. The addition was planned to include a kitchen, a cafeteria, two kindergarten classrooms, and two elementary classrooms. It was anticipated that the exit areas and corridors of the new addition would be used more than the steep, often slippery, marble stairs of the main entrance. From the long range maintenance standpoint, it was decided to incorporate terrazzo floors and tile wainscoating in this area.

The new 1500 square foot cafeteria was designed to help fulfill the building's role of community school. Folding tables and formed Fiberglas stacking chairs were included. Community groups have been encouraged to use the facilities. The kitchen included a range, steam kettle, and deck ovens. A steam table was eliminated because experience had shown that food could be kept sufficiently hot for serving by varying the size of utensils and the efficient use of the ovens, steam kettle, and range.

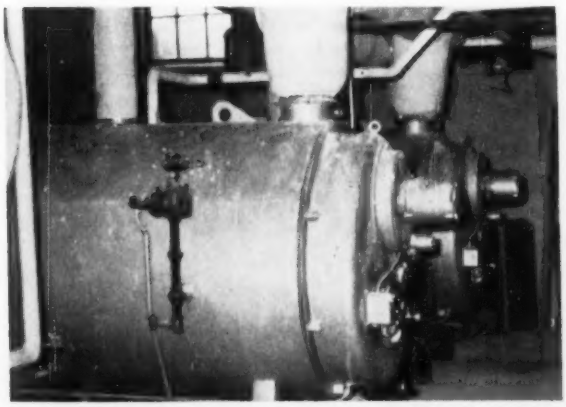
A number of techniques were used to increase the flexibility of the new classroom space. The height of chalkboards and display boards were designed to be adjustable. Cabinets, storage units, and some bookshelves were mounted with casters to increase their mobility. Each classroom was equipped with a counter with a built-in sink and an adjoining toilet room. Draw drapes were used for light control. A relatively new method of heating the new addition, using the boilers in the main building, was designed. A low pressure steam line supplied a heating coil unit through the crawl space of the passageway. After proper humidifying the hot air was used to heat all areas of the addition.

Working closely with the State Education Department, the board of education planned how the new construction would fit in with possible future reorganization plans. Normally, the secondary pupils would attend classes in another village. For planning purposes, the needed facilities were considered as if no high school existed in the district. In this way, all areas would be utilized in the case of future school reorganization. One major problem centered around an area for the proposed industrial arts program. A space was needed that could be utilized as part of an elementary school plant when a proposed future reorganization became a reality. The answer seemed to lie in the construction of a school bus garage. This building, a three stall garage, was constructed reasonably close to the addition. It was equipped with its own heating system and toilet facilities. Normally, a school bus garage is equipped with heavy enough wiring and ample circuits to meet the many demands of modern electrical machinery. This factor was important in reaching the decision to convert the building for use in conjunction with an industrial arts program. One of the three overhead doors was made operable to serve as an adequate service entrance.

The estimated cost of the entire project was $310,000. This plan represented some $395,000 less than the proposed construction program of 1956 prior to reorganization studies. Citizens' Building Committees worked closely with the board and architect during the planning stages. After carefully explaining the objectives and the limitations of the planning to the residents of the town, the board submitted the proposal to the voters in February, 1959. Although the school had been closed because of blizzard conditions, approximately 60 per cent of the residents of the 200 square mile district were able to reach the polls during the day. The nearly 500 voters approved the board of education's proposal by a 20 to 1 margin.

A sensible and realistic school expansion program, planned with the aid of Citizens' Committees, helped the board of education to improve greatly the instructional program offered in the district. In addition to an industrial arts program, and additional academic courses, smaller class sizes became a reality. In addition, space became available to offer a dental hygienic program. An elementary supervisor was authorized through the Board of Cooperative Educational Services to help the elementary teachers who had been thwarted for many years by large, unwieldly classes.

The four main contracts amounted to $244,152. Kitchen equipment contracts were let separately to encourage the smaller, highly competitive suppliers. The building capacity was increased to nearly 390. The cost of the 7850 square foot addition amounted to $17.27 per square foot. Architect's fees, equipment, and legal fees brought the total cost to $310,000.



New oil-fired package unit furnaces, above, replaced the hand-fired, coal burning boilers. A new, modern underground electrical service entrance, right, was added, eliminating the overhead wires.

How Wood Saved at Arcata

KENNETH R. MacDONALD

The problem of how to save money in building was solved by the Humboldt County, Calif., school district and architect Gerald Matson with extensive use of wood in the Pacific Union School.

During the next ten years, more than $40 billion will be spent throughout the United States on construction of new schools to meet the educational needs of the increasing population. The problem of how to save money in the building of new schools is facing architects, builders and educational leaders everywhere.

One solution has come from Humboldt County, Calif., one of the great lumber centers of the United States, where architect Gerald Matson designed the new Pacific Union School at Arcata. Almost entirely of wood, the school cost only $327,747 for 18,139 usable square feet of space.

The entire structure, consisting of nine standard size classrooms, a kindergarten, a multi-use room, and administration offices, utilizes more than 60,000 square feet of plywood, redwood, fir, birch and walnut, with an additional 20,000 feet of redwood siding and other redwoods designed into the school.

"This extensive use of wood," explains School District Superintendent William F. Hale, "not only was in keeping with the product of our area, but actually made it possible for us to obtain a handsome and functional educational structure built well within the cost ceilings set forth by California's School Allocation Board.

Hale also asserts that the use of wood "made possible much lower maintenance costs, combined with considerable reductions in the costs of heating as well as in the cost of construction."

The main building of the new Arcata school is of wood frame construction, completely fire-proofed to every local and state code requirement. It has glued-laminated beams and wood frame floors in the classrooms, corridors, kindergarten and administration area.

The flooring in these areas is 1⅛ in. plywood with linoleum surface. The multi-use room, toilet rooms and boiler room floors, however, are of concrete slab, surfaced with asphalt tile.

Decorative plywood of all types was used in the offices and in the multi-purpose room while other plywoods were used in the classrooms. Walls are wood frame with redwood sash, and the roof is wood frame with asbestos asphalt surfacing. The exterior is of redwood, stained boards and batts of "A" grade lumber.

Interior finish is of Douglas fir plywood in plain, tweed, Kadance, brushed and sketchwood patterns; redwood plywood in plyweave, figured grain and planked patterns; pre-finished birch panels; and wood pulp acoustical tile. The structure also features fluorescent lighting, electrically controlled solartron skylights and, in four classrooms, coolshade glass, as well as Forestone fissured woodfibre ceiling tile made by Simpson Lumber Company.

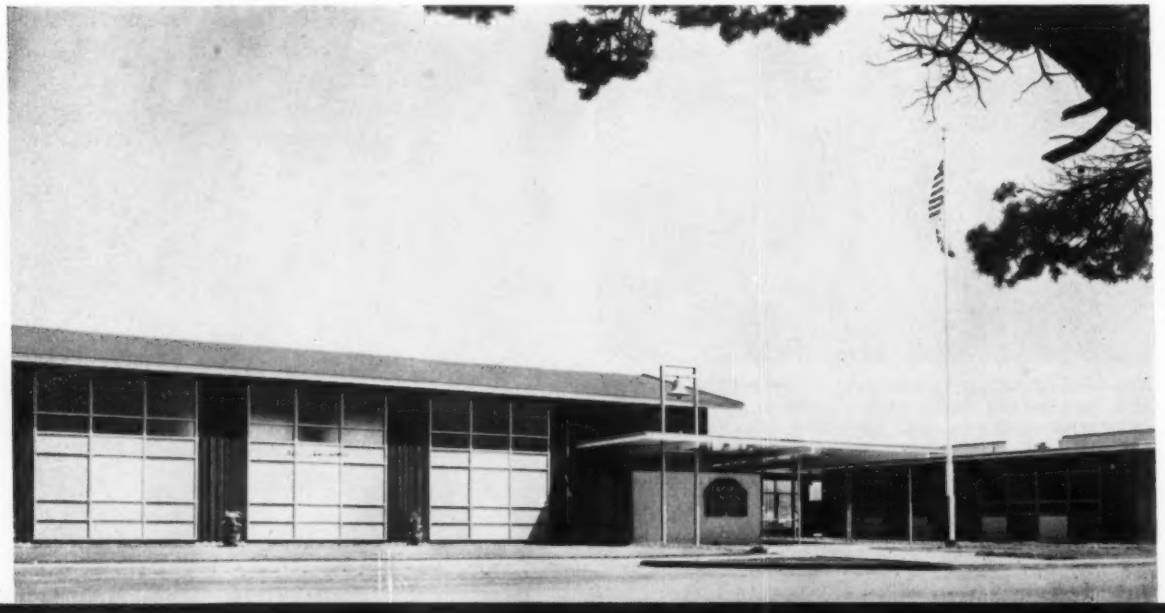
"A major factor in keeping the construction costs down," explains architect Matson, "was the use of two-for-one plywood over a frame floor. This furnishes easy access to the heating and plumbing pipes, thus reducing not only the sub-contract costs, but also future maintenance expenses.

"This type flooring," Matson continued, "represents a departure from the more common concrete slab floor in many schools and eliminates the chances of pipe corrosion through electrolysis, a costly condition that often follows installation of underground piping in areas where soil moisture is high."

"During the entire pre-planning stage," Gabrielson explains, "the board of trustees received suggestions and help from various state educational officials, teachers and local civic leaders, and everyone encouraged the full participation of local people and local industry.

"This was done," he continued, "in order to promote community participation in the school building program and to stimulate use of local products in order to demonstrate that a wood school building might have a low initial and low maintenance cost." ■

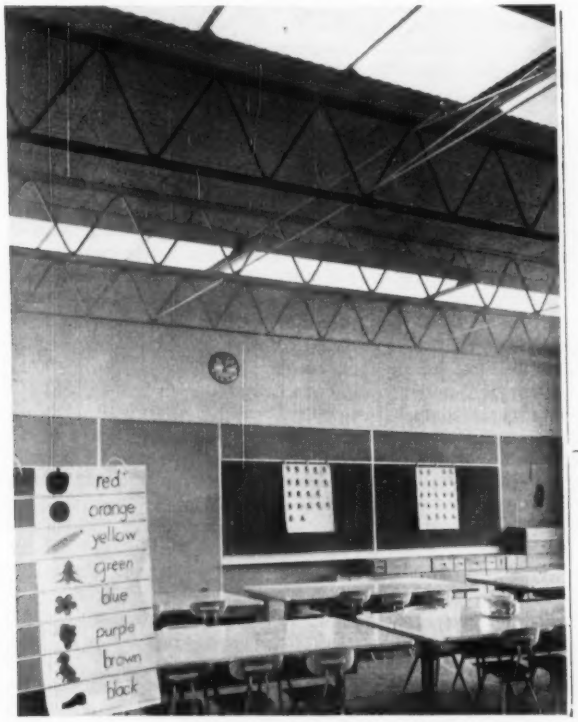
Pacific Union Elementary School in Arcata, Calif.

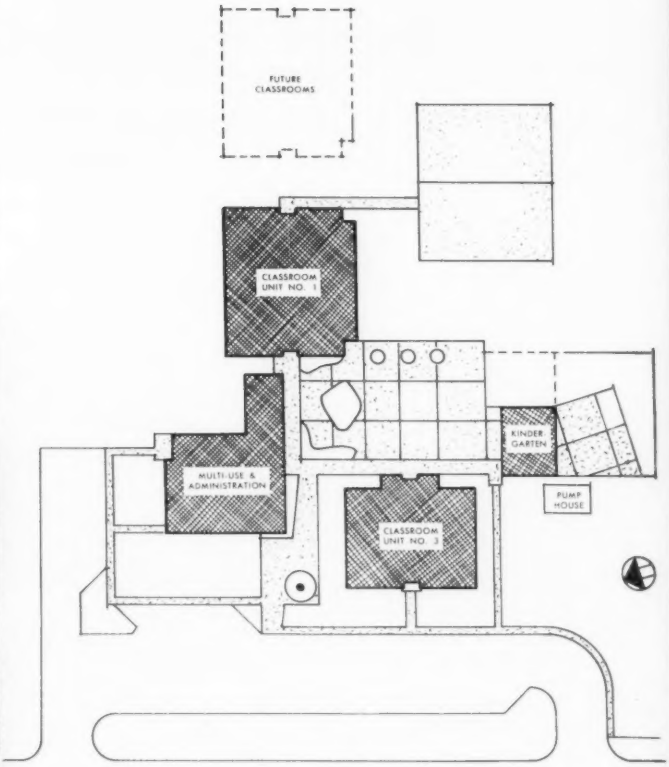


Facilities: 9 classrooms, kindergarten, 2 offices, teachers' room, workroom, multi-use room (seating 264)

Construction

Exterior: redwood boards and "A" grade resawn.
Walls: specialty plywoods and gypboard
Roof: asbestos built-up
Windows: redwood sash awning type
Corridor and stair finish: concrete
Floor covering: linoleum
Multi-use room: birch plywood wainscot, gypboard, asphalt tile floor
Toilet room finish: ceramic tile and gypboard
Lighting: fluorescent
Heating: gas-fired, unit ventilators





Plot plan of Pacific Union Elementary School in Arcata, Calif. Gerald Matson, Architect.

The multi-use room has a sound-proofed ceiling of Forestone woodfiber acoustical tile which has been carried down a portion of the side walls for decorative effect as well as sound control.

Costs

bid, cost, $294,866
square feet, 18,140
cost/sq. ft., $16.25
cost/pupil, $837.69

Products

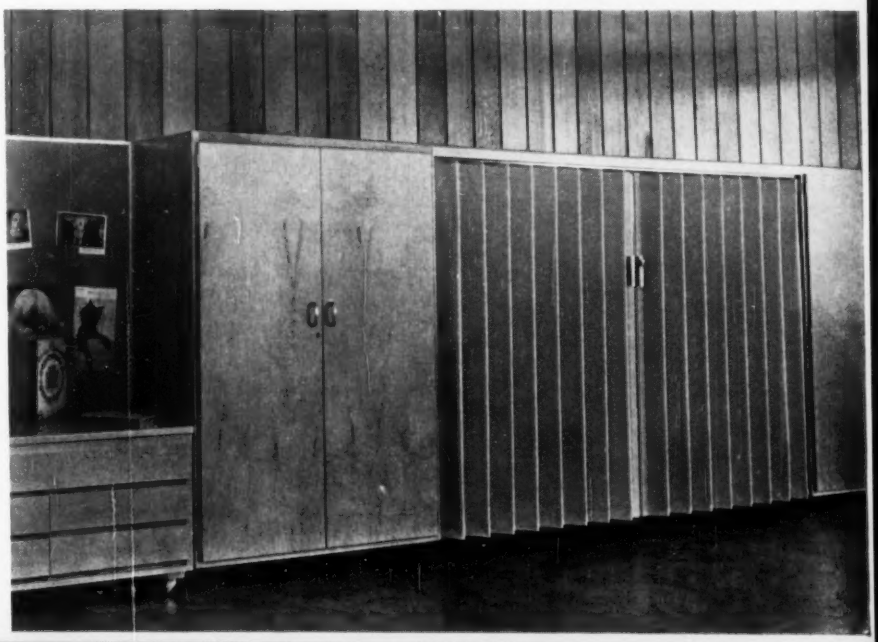
Heating: controls, Barber Coleman; boilers, American Standard; ventilators, Nesbitt; fans, American Blower

Electrical: fixtures, Perfect Vision; program clocks, Standard Time; controls, Cutler-Hammer

Sanitary: toilets and urinals, American Standard; bowls, Bradley; drinking fountains, Haws; toilet partitions, Sanymetal

General: paints, Glidden; insulation, Kimberly-Clark; accoustical tile, Simpson; linoleum, Armstrong; blackboards, Weber-Costello; desks and office furniture, American Seating; food serving equipment, Hobart; cafeteria tables, Schieber; basketball backstops, E-Z Fold; duplicating machines, Azograph; doors, Roddiscraft

There are wash-bowl facilities immediately adjacent to the storage and locker space (shown) in each classroom.



Begin by Playing with Circles

KENNETH H. PARKER and H. CURTIS ITTNER

Dr. Parker is Director of Guidance of the Lamphere Public Schools, Madison Heights, Mich. Mr. Ittner is with the architectural firm of William B. Ittner, Inc., of St. Louis, Mo., and is also a member of the AIA.

A great many educational articles deal with up-to-date ideas about the design and construction of modern secondary school buildings. Although it is obvious that guidance and counseling services are important within the framework of modern educational philosophy, little may be found about the proper design and location of guidance facilities within the school plant. Classrooms, gymnasiums, cafeterias, and libraries are discussed and designed in great detail, but this is not the case with facilities to house one of the fastest growing and widely accepted educational services — the guidance program.

Research as to the effect of various locations, design, and decor of guidance office space on the acceptance by students of the services offered is virtually nonexistent. However, it is known that counseling is more effective where that atmosphere exists which is permissive in nature, and which is not connected in the student's mind with discipline and authority. Such an atmosphere may be due partially to the attitude of the counselors themselves; and partially due, perhaps, to the location and "feeling" of the guidance space. It is psychologically imperative that this area be located so as to attract the pupils to it and to make them feel welcome.

Committees assigned to work on planning a new secondary school may "begin by playing with circles." The idea is endorsed by the American Institute of Architecture and is equally applicable to all other areas of the school plant. In fact, in its ultimate sense this concept should be applied to the total school plant so that all areas of the building may assume their proper relationship to each other's part. This process consists of four basic steps:

1. Show the relationships of all major areas to be included in the school plant by "playing with circles."

2. Show the general relationships of those areas to be associated with guidance in more detail, again by "playing with circles." These might be the main lobby (or access), the administrative offices, the library, etc. (See Figure 1.)

3. Break the guidance area itself into smaller circles, showing how the waiting area, the counseling offices, the conference room, the testing room, etc., are related to each other. (See Figure 2.)

4. The architect then translates these schematics into a formal drawing of the floor plan, relating each area properly into the total plant structure.

The school building committees working on this project are interested only in developing Steps 1, 2, and 3. The architect should be employed early in this planning and should be available to the committee as a consultant while drawing up these schematic plans with circles. During the process, it should be the responsibility of the committee to interpret to the architect (who very likely went to school a decade or two ago when there were no guidance services) the philosophy of the school concerning guidance and the activities that will be performed in this area. The architect who has a thorough understanding of the purposes and activities of the guidance program will be able to plan more adequately for these services.

After the committee, working with the architect, has developed the plan through Steps 1, 2, and 3, the architect takes over and tries to incorporate the relationships shown by the circles into a workable floor plan, integrating the guidance area into a cohesive pattern with the other areas of the school plant. The committee will naturally want to go over these preliminary plans with the architect to detect any gross mistakes or oversights.

For this reason, it is well to include a complete "check list" with all schematic diagrams. Each school will have to develop this according to its particular needs. The U. S. Department of Health, Education and Welfare, Office of Education Bulletin No. OE-25013, entitled "Physical Facilities for School Guidance Services" (edited by Don D. Twiford)," which contains the schematic diagrams shown in this article and also a sample check list for the guidance area, may be used for reference.

Although this concept of beginning by making circles is not new among architects, it seems to have been overlooked by educators. This sometimes leads the architect into an almost impossible task of trying to correlate the "plans" given to him by different committees within the school into a workable whole. The impossibility of this has been visibly demonstrated by at least one architect who took the committees' plans, and literally "stuck" them together exactly as they were submitted. Corridors of varying widths, classrooms of different sizes, etc., made the building look like something constructed out of assorted children's building blocks.

Planning with circles helps to eliminate this problem, and thus gives the architect more freedom to use his own creativeness and imagination in designing the school building.

If all parties concerned conscientiously strive to work together on a project of this kind, school personnel will be more satisfied with the building that they get from the drawing boards of their architects. ■

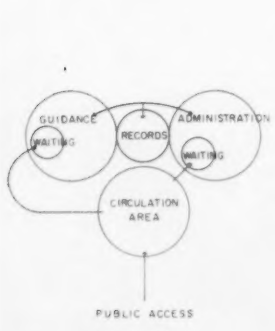


FIGURE 1

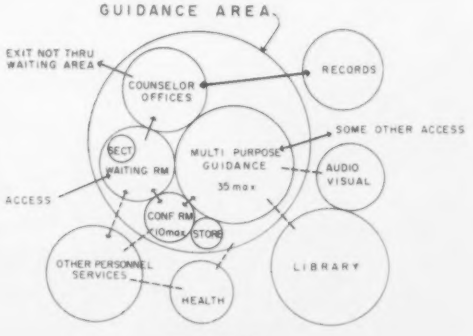


FIGURE 2

Why East Jackson Is Converting To All-Gas Heating

LOUIS SERIANNI

Mr. Serianni is president of the East Jackson School Board, Jackson County Mich.

It was four years ago that the idea of using natural gas, apparently a more costly fuel than some others available, was given consideration as a heating source for the East Jackson, Mich., school district. Today every school in our district which has gas service available is heated by this fuel. As the utility company extends its lines into the rural areas, we plan to convert the entire school system to natural gas heating. The factors we have discovered which make a more "expensive" heating fuel preferable — and more economical — may be of interest to school boards similar to ours in East Jackson.

Introduction to Natural Gas

Our school district encompasses four townships, and currently has in its jurisdiction about 1550 students and $14,025,000 worth of property covering over 100 acres. It operates two elementary, a junior high, and a senior high school with a total of some 80 classrooms.

In 1956 we decided to add an industrial arts area to our old high school (now our junior high). Existing heat facilities, a 5¼ million Btu coal-fired boiler, were operating at near capacity, so additional heating equipment was needed.

A representative of the local Power Company attended a board meeting and made a very convincing report on the benefits to be derived from gas heat. He convinced us to install a package boiler (and a gas-fired incinerator) to serve the additions to the steam radiator system in the school, although the board had some reservations about buying a more expensive fuel.

It took but a short period of operation, however, to convince us that heating by natural gas was effective and we immediately ordered the conversion of other existing equipment in this school to a gas heating system. Our experience since that time strengthens our belief that we have found the ideal school heating fuel.

Why? The reasons are many, but the following are the primary ones:

A. *Economy*

1. We save the cost of more than two-thirds of a man needed to fire boilers with coal equipment.

2. We save maintenance costs since gas burning equipment is virtually maintenance-free and the utility company supplies excellent service.

3. It is unnecessary to clean flues periodically, eliminating the two men needed over a week-end three times per year to do this job.

4. We converted the former coal storage area to locker rooms and showers for the girls, saving us the expense of added construction for these needed facilities.

B. *Cleanliness*

1. Smoke, always a source of annoyance to homes surrounding the school, was eliminated by the use of clean-burning gas.

2. Cleaning the school interior became an infinitely simpler job with the elimination of coal dust which used to settle over everything.

C. *Convenience*

1. There is no delivery problem, since the gas is always on hand and ready for use, no matter how capricious the weather.

2. The sometimes-distracting deliveries during school hours no longer interrupt normal classroom activities.

Designed for Gas

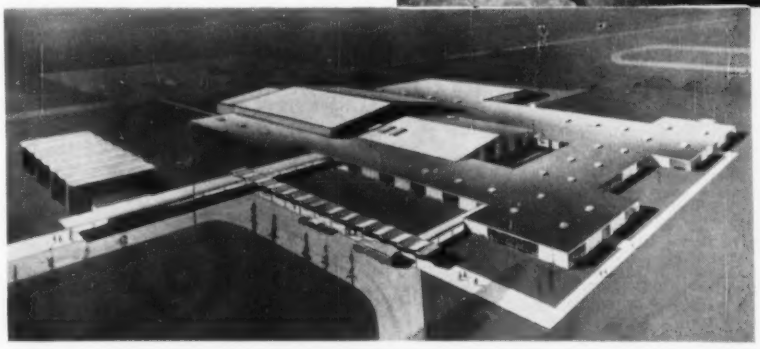
The East Jackson High School is a million dollar structure of which we are inordinately proud for a number of reasons, not the least of which is that it cost only $9.73 per square foot to build without sacrificing quality or stinting on extras. It is also the first school in Michigan to have a fall-out shelter — 18,000 square feet to accommodate 1000 people for two weeks — an integral part of original construction design. The school contains 113,800 square feet which are divided into 27 classrooms, "cafetorium," gymnasium, and other standard faculty, administration, and service areas.

The heating system decided upon by the architects — Kainlauri, MacMullan & Associates, Inc., of Ann Arbor — was a gas-fired boiler, steam heating system. One boiler serves the unit ventilators in each classroom, with a separate heating and ventilating system in the gymnasium, cafetorium, music rooms, and shops. Forced ventilation is used in all toilet rooms, locker rooms, etc.

Our expansion plans include 10 to 12 additional classrooms, expanded shop and home economics laboratories, and a pool with sun deck. We feel, however, that current facilities are adequate for the next three years, our enrollment being 1550 and our capacity 2000 students.

The costs? We have cut bond millage by 1.1 mills this year, and hope to reduce it further within two or three years. During 1959–60 we wiped out a former deficit and operated the school system in the black. ■

Below is the architect's sketch of the new East Jackson High School and at the right is a view of the school's gas heating plant.



Bid, Performance, and Payment Bonds of School Building Contractors

HAROLD H. PUNKE

Dr. Punke is a professor of education at Auburn University, Auburn, Ala.

Increased enrollments and variations in educational programs make school plants increasingly complex. Litigation frequently arises over the bonding of contractors employed to erect the intricate structures needed. This article reviews recent cases on the subject which have come before our higher courts.[1]

1. General provision and construction of contractor's bonds. Statutes often require school officials to secure a bond from a building contractor, to insure performance and also the payment of materialmen and laborers. Various controversies arise over construction of the statutes and bonds concerned.

a) Ministerial duty to execute a statutory bond. A statute may not only require a bond, but set forth the essentials to be included. Under such conditions, requiring the bond is not a matter of judgment, but a ministerial duty — for the neglect of which board members are ordinarily liable.

Thus a Florida statute[2] prescribed a bond requiring that the contractor promptly pay "all persons supplying him with labor, material and supplies" used on the job. The contract provided that it became effective upon delivery of a bond "as security for the payment of all persons performing labor and furnishing materials." The bond stipulated that it indemnified the district against loss, allowed action on the bond only by the district, and limited obligation to that of suretyship. However, the bond referred to the contract, and stated: "a copy of which is hereto annexed."

It was contended that the bond did not meet statutory requirements, and that board members were personally liable for neglecting a ministerial duty. The court said the bond did not need to incorporate the exact wording of the statute, that the contract provided for a bond guaranteeing payment of laborers and materialmen, and that the bond referred to the contract. The court reasoned that where one document refers to or annexes another, all pertinent aspects of the second are incorporated in the first. The bond met statutory requirements.

b) Forfeiture under bid bonds. Bidders for constructing school buildings are typically required to accompany bids with a cash deposit or a bid bond — to insure that a bidder will sign a construction contract if his bid is accepted. Sometimes a successful bid is so much lower than other bids that curiosity arises as to whether the bidder omitted items in totaling his bid. Question arises on whether a low bidder upon proving a mistake, can withdraw his bid and escape liability.

Such a low bidder in California[3] was permitted to consult his wife, who helped prepare the bid. After such consultation, he assured the board that his bid was correct as submitted. The board then accepted it. Next morning, the bidder discovered an error. He communicated this fact at a special board meeting, and asked to be relieved. The board refused. The bidder refused to sign a construction contract. The board did not know of the error when it accepted the bid. The court reasoned that the bidder actually submitted the bid which he intended — that his error was in thinking it was correct, and held that the bid could not be withdrawn after acceptance. The bid bond was forfeited.

The board tried to recover the difference between this bid and that for which the contract was finally let. The board's effort was based partly on wording in the bond, which purported greater liability than the figure specifically named.

The court stated that a bid bond was only to insure signing a performance contract, and was presumed to pay for re-advertising and similar aspects of rebidding. If there is discrepancy between the contract and the bond, added the court, the contract governs. Liability was limited to the amount of the bid bond. However, the opinion recognized that some courts permit greater liability.

At a public opening of bids in Pennsylvania,[4] the plaintiff was notified that his bid was substantially below all others. Upon re-examination of work sheets, he discovered a clerical omission. Five days later he wrote to the school authority requesting the withdrawal of his bid and return of the bid bond. About six weeks after this notice, the authority accepted the bid. Plaintiff refused to sign a performance contract, and the authority declared him to be in default. In holding the bond to be forfeited, the court did not emphasize the time relationship between formal request for withdrawal of the bid and formal acceptance. The court emphasized that the mistake was unilateral and a result of negligence, and that after the initial bidding the authority could not be put in *status quo*. The amount of the bond was liquidated damages. Damages beyond this amount could not be recovered.[5]

A Texas advertisement for bids[6] stated that the bid bond would constitute "liquidated damages," for a successful bidder who refused to sign a performance contract. Gaynor did not meet the time deadline, but rushed in his bid at the meeting for opening bids. Other bidders agreed to allow his bid to be considered. As successful bidder, Gaynor then refused to sign a performance contract and sought the return of his bid bond. He contended that since his bid was late, it was not competitive. He pointed to a recent statute which required competitive bids on construction contracts let by cities and counties, and argued that the same requirement governed school districts. However, the court followed a prior ruling of the state attorney general to the effect that school districts need not seek competitive bids. The court reasoned that the legislature would have changed this situation through the statute concerned, if it intended to require districts to obtain such bids. Since the statute did not require such bids, the board could waive the time limit — so long as it acted in good faith. Gaynor also contended that the board failed to show that it suffered damage. However, the court pointed to the advertisement, and held that the bid bond was forfeited.

A New York[7] bid bond was similarly forfeited. The court briefly stated: "The bid proposal was duly accepted by the plaintiff and the bidder given the written notice thereof as specified in the bid proposal. The bid was not withdrawn before acceptance. The defendants . . . failed to execute the performance contract and furnish a performance bond in accordance with the conditions of the bid bond." No recovery beyond the bid bond was allowed.

[1] During March, April, July, and August of 1957, the author published in the AMERICAN SCHOOL BOARD JOURNAL an article in four parts under the general title: "Surety Bonds of School Building Contractors." This article reviewed the cases which had been decided by our higher courts on the subject after the publication in 1936 by the University of Chicago Press of the author's book: *The Courts and Public School Property*. The present article reviews the cases decided since the 1957 article was prepared. (A few cases omitted in 1957 are included.)

[2] *Collins* v. *National Life Insurance Co. of Hartford*, 105 So. 2d 190 (1958).

[3] *Elsinore Union Elementary School District* v. *Kastorff*, 346 P. 2d 850 (1959).

[4] *Hedden* v. *Northampton Area Joint School Authority*, 396 Pa. 328, 152 A. 2d 463 (1959).

[5] The court cited *Colella* v. *Allegheney County*, 391 Pa. 103, 137 A. 2d 265, for the reasoning to support the holding. The court said that the Colella case covered exactly the same facts, except that a county construction contract was involved.

[6] *Gaynor Construction Co.* v. *Board of Trustees*, 233 S. W. 2d 472 (1950, rehearing denied).

[7] *Board of Education* v. *Maryland Casualty Co.*, 98 N. Y. S. 2d 865, 277 App. Div. 936 (1950).

[8] *Independent School District* v. *Weinmann*, 68 N. W. 2d 248 (1955).

Contrary to foregoing cases, a Minnesota court held[8] that recovery might exceed the bid bond and equal the difference between the defaulted bid and the next lowest bid. The bid bond stated between the principal's bid and the cost of getting the work done otherwise — but added that such amount could not exceed the amount of the bond. The bidder was misled by previous oral that the surety would pay the difference promises concerning a performance bond. He could not secure the required performance bond, and refused to sign the performance contract. The court reasoned that the mistake regarding the performance bond was not in the same category as an error in adding figures — as a basis for rescinding a bid. The court added that the bid bond was intended to protect the district against loss from having to accept the next lowest bid, and that the usual policy on penal sums in bonds did not apply.

A Nebraska decision[9] differs from all foregoing cases in allowing a low bidder to withdraw his bid without penalty. An experienced employee of the bidder made an error of about $20,000 in copying an item on work sheets. The error was not discovered in totaling items for entering the bid. The day after the bids were opened, the low bidder was impressed by the difference between his bid and the next lowest bid. On rechecking work sheets he discovered the error, and immediately notified the district and the architect. The district insisted on compliance with the bid. The court reasoned that the error was clerical, not one of judgment; there had been no actual meeting of the minds of contracting parties; no intervening rights of third parties had accrued; reasonable care had been exercised by the party making the unilateral mistake; withdrawal of the bid would not unduly prejudice the district; and enforcing the bid would enable the district to profit unconscionably at the expense of the bidder. The bid bond was not forfeited.

c) "Performance" bonds and "payment" bonds. One must differentiate between a bond which assures that a building will be constructed according to plans and specifications, and a bond which assures payment of materialmen and laborers. The two are often called "performance" and "payment" bonds, respectively.

A Maryland bond[10] required the principal contractor to "indemnify and reimburse" the district for any loss resulting from his failure "to faithfully observe and perform each and every obligation and duty imposed" by the contract "at the time and in the manner therein specified." The bond was held merely to protect the district, not materialmen or laborers. The court reasoned that the surety was not required to make his obligation co-extensive with that of the principal contractor, and added that "suppliers" might sue the contractor.

An Arizona dispute[11] concerned the liability of the principal contractor's surety for payment to materialmen of a subcontractor. The bond stipulated: "Except as otherwise noted, the contractor shall provide and pay for all materials, labor, tools, water, power and other items necessary to complete the work." One section of the statute required the contractor to give a bond "conditioned upon the faithful performance of the contract." This section, held the court, did not protect materialmen but only the district. Another section required the contractor to furnish satisfactory receipts for all labor and material bills, and waiver of liens from any person holding a claim against the work. The court held that this section was satisfied if the contractor supplied receipts, etc., from laborers and materialmen whom he directly employed — he did not need to make sure that subcontractors had paid their respective suppliers. In holding that the bond did not protect materialmen of subcontractors, the court reasoned that for third persons to be protected by such a bond there must be specific provisions in the bond for their protection.

A Virginia court[12] took a different position on a similar case. The statute required a bond, conditioned upon "payment to all persons performing labor and furnishing materials," and stated that "each person who performs labor and furnishes materials" shall have a direct right of action on the bond. Essentially these provisions were stated in the bond. The court said that the obvious intent of the statute was to protect laborers and materialmen, and held it to be irrelevant whether the materials were furnished to the principal contractor or to a subcontractor.

d) *Special relations between contractor and subcontractor.* In Louisiana,[13] subcontractor Johnson failed to perform his work according to specifications, in spite of repeated written notification by contractor Caldwell. Shortly after the school board accepted the work as complete, various suppliers of Johnson filed suit against him. He refused to pay the claims. Caldwell then bonded the claims, to release funds withheld by the board. Caldwell completed work not done by Johnson, and repaired work done by him. Johnson's surety guaranteed performance of the subcontract, and payment of his laborers and materialmen. Caldwell recovered from Johnson's surety the cost of work which the subcontract called for Johnson to do.

A recent Oregon statute[14] required that contractors promptly pay laborers and materialmen. A subcontractor agreed to "furnish all labor and materials . . . necessary to perform the electrical work Payments to subcontractors were based on estimates approved by the architect, with a retainage held "until 35 days after completion and acceptance." A surety for the subcontractors provided a "Labor and Material Payment Bond." The subcontractor completed his work in early January, and in the following December Wiley paid him in full. Thereafter, Wiley had to pay a judgment in favor of a materialman of the subcontractor. Wiley sought to recover from the subcontractor's surety. In holding the surety liable, the court reasoned that the statute which required a contractor to pay materialmen became part of the subcontractor's agreement when he contracted to furnish materials and do electrical work as required by the general contract.

The Agreement between a Georgia contractor[15] and a subcontractor stipulated: "No claim for services rendered or materials furnished by the contractor to the subcontractor shall be valid unless written notice thereof is given by the contractor to the subcontractor during the first 10 days of the calendar month following that in which the claim originates." The court held that, in the absence of any waiver of this right by the subcontractor, the principal contractor must give the stipulated notice in order to recover.

A recent declaratory judgment in Massachusetts[16] concerned the right of a general contractor to require either a performance or a payment bond of subcontractors. The original 1939 enactment of the governing statute required no such bond. A 1941 amendment required subcontractors to supply a performance bond, if so requested by the general contractor or the school district. The 1954 amendment omitted all reference to a bond furnished by subcontractors. But under the bid form, the subcontractor agreed "to be bound to the general contractor by the terms of the general conditions, drawings and specifications, and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the owner." The general contractor argued that since he must give to the district the bonds indicated, the subcontractors must give such bonds to him. The subcontractor contended that the 1954 amendment was intended to force general contractors to use only reliable bidders, who afforded adequate protection without a surety bond, and to prevent a contractor from requiring such bonds of subcontractors. The court noted that a statute required general contractors to file bids in such a way as to show what work was to be done by them directly, as well as the price and description of work to be done by

[8] *School District of Scottsbluff* v. *Olson Construction Co.*, 153 Neb. 451, 45 N. W. 2d 164 (1950).

[9] *Board of Education of Montgomery County* v. *Judson*, 211 Md. 188, 126 A. 2d 615 (1956).

[11] *American Radiator and Standard Sanitary Corp.* v. *Forbes*, 259 F. 2d 147 (1958).

[12] *Thomas Somerville Co.* v. *Brayhill*, 200 Va. 358, 105 S. E. 2d 824 (1958).

[13] *Coburn Supply Co.* v. *James E. Caldwell Co.*, 231 La. 1026, 93 So. 2d 546 (1957).

[14] *Wiley Co.* v. *Home Indemnity Co.*, 213 Ore. 493, 326 P. 2d 123 (1958).

[15] *Simonton Construction Co.* v. *Pope*, 95 Ga. App. 211, 97 S. E. 2d 590 (1957, rehearing denied, transferred from 212 Ga. 456, 93 S. E. 2d 712; reversed 95 S. E. 2d 216).

[16] *Poorvu Construction Co., Inc.* v. *Nelson Electric Co., Inc.*, 335 Mass. 545, 140 N. E. 2d 891 (1957).

in accordance with plans and specifications" as required by contractor Wiley.

(*Concluded on page 46*)

Congress Considers Public School Aid

ELAINE EXTON

Climaxing eight days and several night sessions of debate, on May 25, 1961, the Senate of the United States adopted a $2.5 billion program of general federal aid to public elementary and secondary schools which retains the main elements President Kennedy requested.

Passage of S. 1021

Whether this action would be a prelude to final victory or for the fourth time in a dozen years history will again record that, though clearing the hurdle of Senate passage, such legislation once more failed to become a law was puzzling Capitol Hill observers. Nor was prediction made easier by the contradictory answers supplied by the supporters of the measure and its opponents.

Acknowledging that no doubt, difficulties are still in the way and much work needs to be done before the bill can be sent to the White House, Sen. Mike Mansfield (D., Mont.), the Majority Leader, commented: "For the first time the prospects of accomplishment are bright. . . . This is a proud and hopeful moment" for those working for school aid legislation. But on the other side Rep. Peter Frelinghuysen, Jr. (R., N. J.), the ranking minority member of the House General Subcommittee on Education, on learning of the Senate's action said: "I'm reasonably confident we can beat it!"

In the Senate where adoption of a general public school aid measure was never in jeopardy, the most surprising development was the slim margin of victory. The 49 to 34 roll-call vote which sent the legislation to the House failed to give the mandate its backers had been hoping for. Nor did it provide as strong a hand for Senate conferees as had been anticipated in the event the legislation reaches a conference with the House.

Not only did "the probable margin of better than 2 to 1" that had been confidently predicted by education lobbyists fail to materialize, but the tally was two votes under the 51 to 34 roll-call by which a general-aid-to-education bill passed the Senate on February 4, 1960. In this year's count-down 41 Democrats and 8 Republicans were recorded for the bill, while 12 Democrats, mostly from the South, and 22 Republicans voted against it. Had all the Senators who were "paired" for and against S. 1021 actually been present and voting, the final tally would have been 59 to 41.

Prospects in the House

Despite Senate approval and the jubilant claims of National Education Association spokesmen that "the (House) Committee (on Education and Labor) went along with the NEA's recommendations for a clean, public-school bill without confusing amendment's relating to segregation, private schools, loyalty oaths, or other irrelevant proposals," the legislation faced an uncertain future in the more conservative House which in the past has been less favorably disposed than the Senate toward the concept of general federal education aid.

By the time this article is published the administration-backed legislation may have been rejected by the House or passed and signed into law by President Kennedy. If the House adopts H.R. 7300, the bill reported by its Education Committee, or one like it, top ranking majority and minority members of the Senate and House Education Committees must meet in conference to try to reconcile the differences between the House and Senate approved versions and agree on a report.

Until such a report is actually filed and its acceptance has been put to a vote in both the House and Senate, school board members who feel strongly on this issue will have time to make their opinions known to their representatives and other key legislators in Congress.

Committee Legislative Changes

As originally introduced the companion bills presenting President Kennedy's public school aid recommendations — S. 1021 co-sponsored by Senator Wayne Morse with 22 others and H.R. 4970 by Representative Frank Thompson, Jr. — were identical measures.

The bills reported out by the Senate Committee on Labor and Public Welfare (Senate Report No. 255, May 11, 1961) and by the House Committee on Education and Labor (House Report No. 445, May 25, 1961) after extensive hearings and weeks of study are modifications which though incorporating most of the basic provisions in the Kennedy plan are different from it in some respects and from each other.

While the federal financial aid for public schools bill reported by the Senate Committee on Labor and Public Welfare, which passed the Senate with two amendments, still retains its original number (S. 1021), the House Education Committee instructed its chairman to introduce a "clean" bill (H.R. 7300) to reflect the committee-approved amendments.

The original administration draft and these House and Senate measures are alike in proposing a beginning 3-year program of flat grants (without direct matching) to the states and outlying possessions for public school improvement.

Indirect matching would be necessary to carry out the administration's maintenance-of-effort recommendation, however. To assure that the federal grants made available under Title I (which authorizes the public school program) will supplement rather than supplant state and local funds, both S. 1021 and H.R. 7300, as did the Kennedy model, provide that if states and local school districts

fall below the national effort, they must maintain a rate of increase equal to, or in excess of the national rate of increase. The bills' provisions would reduce the size of the grant, otherwise allocable in the program's second and third year, for any state which reduces its school effort.

One of the most striking differences in the three versions of the legislation under discussion lies in the allocation formulas.

In the Kennedy plan the construction-salary money would be distributed among the states on a basis which takes into account the number of pupils each state has in average daily attendance in its public schools and the personal income of individuals in the state in relation to the state's total number of public school pupils, with the needier states receiving the larger allotments.

Under its formula, in the first year the highest income states would receive grants on the basis of $15 per public school pupil, while the federal assistance would range up to almost $30 in the lower-income states. Every state would be entitled to at least $15 per public school child.

H.R. 7300 retains the basic provisions of the Kennedy formula in that it sets a minimum of $12 per school-age child upon which equalization is applied at a 2 to 1 ratio. In S. 1021 as reported by the Senate Committee on Labor and Public Welfare, on the other hand, the allotment formula of the administration bill has been changed to the formula embodied in S. 8 as it passed the Senate last year. The $15 minimum allotment per public school pupil has been dropped to achieve an equalization of 3 to 1 regardless of the amount appropriated. Both bills were broadened in committees to include all school-age children (5 to 17 years).

Both H.R. 7300 and S. 1021 seek larger money authorizations for public elementary and secondary school assistance than does the original Kennedy measure which calls for a $2,298,000,000 expenditure over three years ($666 million the first year, $766 million the second, and $866 million the third).

In H.R. 7300 the over-all figure is raised to $2,484,000,000 ($720 million the first year, $828 million the second, and $936 million the third year). The Senate-passed bill authorizes a total of $2,550,000,000 ($850 million in each year of the program).

The Kennedy legislation provides for reserving 10 per cent of each state's first year allotment annually during the program's duration for its use in paying part of the cost of pilot, demonstration, or experimental projects designed to meet public school problems or to develop or evaluate public school programs of a special or unique nature.

S. 1021 retains this feature. But the full House Committee on Education and Labor eliminated it from their bill in order, according to usually reliable quarters, to conciliate Southern Congressmen who fear that such funds might be used to promote school desegration.

Federally-Affected Areas

As reported by the Congressional education committees S. 1021 and H.R. 7300 are in substantial agreement regarding the extension of Public Laws 815 and 874, 81st Congress, authorizing financial assistance to federally-impacted school districts for school construction and current operating expenses which will expire on June 30, 1961, unless extended by the Congress.

Each has a Title II which would continue the temporary provisions of these two laws for three more years at their current levels of payment and bring American Samoa under their provisions. Besides these changes H.R. 7300 includes minor technical amendments.

In the present cloudy outlook for the general school and legislation, the federally-affected areas program seems the public school assistance most certain to emerge. During the debate on the House floor efforts will be made to separate the two titles of H.R. 7300, action which seems almost certain to carry if the general aid provisions in Title I should flounder in the turbulent cross-currents of racial and religious issues.

Among the strategies being discussed are a motion to substitute the continuation of Public Laws 815 and 874 for bill H.R. 7300 and a motion to recommit the public school aid legislation to the House Education and Labor Committee with instructions to only report out an extension of the impacted-areas laws.

The Kennedy legislation differs from the bills just described in that it would make the temporary provisions in Public Laws 815 and 874 permanent. It would, moreover, reduce by at least 50 per cent payments for children in the "B" category of federal impact — primarily those who live in a private home with a parent employed on federal property — and also raise the eligibility requirements for assistance in this category.

Federal payments under the federal-contract category ("C") would be eliminated entirely. In addition a number of minor "perfecting" amendments are included which would improve administration and effect a slight reduction in cost.

Money-wise the Kennedy recommendations for federally-affected areas would cost an estimated $205 million for the fiscal year 1962 ($158 million for PL 874 and roughly $45 million for PL 815) compared to an expenditure of $312 million authorized in the committee-reported House and Senate bills ($250 million for PL 874 and $62 million for PL 815). In the latter bills the $40 million limitation pertaining to facilities for school districts with large enrollments of Indian children living on Indian lands would be raised to $60 million.

Modifying Amendments

Sixteen "unwanted" amendments were successfully fended off by administration forces in the course of the Senate debate ranging from modifications which would change S. 1021's allocation formula, method of financing, or money amount to the Goldwater (R., Ariz.) proposal providing federal loans for public and parochial school construction.

The Bush (R., Conn.) amendment to deny federal aid to states with segregated schools and the Talmadge (D., Ga.) amendment to bar withholding of any authorized funds from any state education agency which has complied with the legislation's provisions were both defeated.

Only the two amendments approved by the Democratic Majority leadership were adopted. One sponsored by Senator Joseph S. Clark (D., Pa.) increases from approximately $1,600,000 to $3,100,000 the amount of funds to be received by the District of Columbia under S. 1021.

The other offered by Senator Winston L. Prouty (R., Vt.) which was adopted by 51 yeas to 39 nays significantly changes the bill's purpose to permit the states to spend the federal money not only for public school construction and teachers pay, as provided in the original Kennedy bills and H.R. 7300, but for any operating and maintenance costs of public elementary or secondary school education, exclusive of debt retirement. Usually well informed sources interpreted the move as an attempt to gain a stronger bargaining position with House conferees in the event the latter body adopts a measure limited to aid for school construction only.

In discussing his amendment Senator Prouty explained that it does two things. First it makes the provision requiring states to spend 10 per cent of their alloted funds on experimental and pilot projects "permissive rather than mandatory." Second it "adds to the items eligible for assistance — ordinary operating and maintenance costs of public elementary and secondary schools. The way the bill stands now one cannot buy textbooks, library books, school supplies, fuel, school buses, nor can one pay clerical help, librarians, stenographers, school nurses, and custodial help."

He said his amendment "follows extremely closely the language which the late Senator Taft placed in the education bill in 1948 to guarantee state freedom and state rights," and in justifying his position noted that the Council of Chief State School Officers at their 1960 annual meeting "voted by a three to one margin in favor of including teachers' salaries in federal aid legislation, but voted 100 per cent in favor of including current expenses."

Declaring "there is only one issue in this debate, and that issue is: Who is to determine how the money should be spent?" Senator Prouty held that "the states should make the determination." Permitting the states to use federal funds only for school construction and teachers' salaries, as does the committee-reported measure "is not giving them full freedom of choice," he stressed. ■

the editorial stand

Let's End the Grouping Debate

The author of this great editorial is Robert A. Watson, principal of the Ripley School, Concord, Mass.

A recent nationally distributed bulletin reports that there is, in our nation's schools, a trend toward homogeneous grouping. Moreover, it says that this is a dangerous trend.

The first statement is misleading. And the second one is unfortunate. They do nothing to eliminate widespread fuzziness on the subject of grouping. Unless most of us are misinformed it can be stated, unequivocally, that children have been grouped homogeneously for instruction for years. The argument, and therefore the alleged danger, seems to be over the degree to which one should subscribe to such a practice.

Not Undemocratic

Opposition to ability grouping emanates from the conviction that it is undemocratic. The essence of democracy is equal opportunity for all. This does not mean an equal level of education for all, any more than it means equal pay for all workers.

It has been written, "The education of free men must include the education of those of all levels of capacity." In order to do this most effectively, homogeneous grouping is essential. To group any other way is, in fact, undemocratic.

Historically, the teacher confronted by a room of 30 to 35 pupils of mixed abilities aimed her teaching somewhere toward the middle of the class. As a result the majority of her pupils were short changed. This is, unfortunately, often the case today. The New York *Times* reported recently that the factor which influences a teacher's techniques most, despite her training and available research, is the manner in which she, herself, was taught.

Nevertheless, there has been some break with tradition. And many elementary teachers re-group their pupils, according to ability, within the classroom for reading and in some cases arithmetic. This is condoned, even encouraged, by those who oppose ability grouping.

A strange paradox has been created. Apparently it is all right to group seven or eight children in one corner of the room for reading, but to place 25 of near ability in the same room is untenable. Moving children from several classes into a given room for reading is defended; however, it is objectionable to have assigned them there to begin with. It seems as though we believe in homogeneous grouping, but we do not. As a result of our confusion we waste the talents of many of our children.

If the range of abilities in a classroom is great — and it is in a heterogeneous group — the teacher may work effectively with small groups in one subject, but it is impossible to do this in each subject. What does she do? The best she can do is to direct her efforts in other subjects to the total class. A teacher who feels, quite naturally, a compassion for the slow may even lower her level of teaching below the middle of the class, so that the average, along with the brighter, are left unchallenged. This leads to poor study habits, if not poor attitudes toward school.

I am not suggesting that a class of children of near ability eliminates the need for some group work within the room. But it does make sense when we recognize that a teacher spends half her time instructing the entire class. It is physically impossible for her to do otherwise. The validity of this cannot, of course, be denied.

The proponents of heterogeneous grouping say that it gives a class "balance," a desirable diversity. However, diversity is implied to mean only varying ability. It is the diversity of interests that enriches a class, and this is present no less in a homogeneous group than a heterogeneous one.

I am convinced that the great majority of teachers favor ability grouping. They concur that teaching is more efficient and that children gain more whenever a conscious attempt is made to reduce the range of abilities in a class. To believe otherwise is to accept a garbled interpretation of the available research. When a teacher expresses an antipathy for homogeneous grouping, it usually stems from her own preference for teaching slow, average, or bright students. This is natural. It is not, however, an argument against such pupil classification. Rather, it points out differences among teachers and suggests that not all teachers are equally effective with all types of students. This should shock no one. Greater care, then, in making teacher assignments is a logical consideration.

At this stage in the history of the teaching profession is it not reasonable to expect that the problem of grouping ought to have been resolved? It would appear so. No one demurs when we say we must provide for individual differences and challenge every student to the limit of his capacity. If we agree to this, with more than lip service, then it is clear that the most effective way to do this is by ability grouping.

Make Competition Fair

Over the years provisions have been made for separating extremely slow or retarded children. Also, remedial work has been available for pupils in need of it. This is good. Let us continue it. But why do we balk at the prospect of improving the opportunities for the brighter children by employing the same principle. Not to do so is inconsistent with our stated philosophy. If we impute the idea of segregating the bright as poor educational practice, then we are guilty of a *non sequitur*.

Some school people assail the idea of ability grouping — particularly in the case of brighter children — for fear of the development of an elite group. Such apprehension is illusory. In today's economic society, which rewards its movie actors, TV quiz masters, and baseball players better than its teachers, one need not fret about the growth of an intellectual elite. If such a thing did happen, it would probably have only a salubrious effect on society, not to mention individual man's psyche.

A recent piece of research disclosed that up to now the level of education acquired by an individual was contingent upon the level of education obtained by his parents. Heretofore, the pocketbook, not intellectual potential, governed college entrance for many students. Happily the qualifications and opportunities for higher education have been undergoing radical changes. More emphasis is being placed, rightfully, on academic proficiency. This is resulting in student bodies representing all walks of life from the wealthy to the poor — a more homogeneous group intellectually, but a heterogeneous one in all other ways. This is the kind of "balance" or diversity we need. Whether we are talking about the college level or elementary school, if we are true to our own mandate of equal opportunity for all, it follows that we should group children by ability.

I am not suggesting a rigid two track system common to many European countries, where placement in university or vocational courses is made early in the child's life, and is virtually irrevocable. Not at all. In order to insure proper placement for children, the school organization must always be flexible. Continual evaluation of all pupils should be made, and when necessary, re-assignments should be made. This will not upset anyone and the necessity for doing this will not be too often, especially if initial classifications are carefully executed.

Teachers and administrators who oppose ability grouping often refer vaguely to educational research to support their stand. There is no such research to be found. However, there is evidence to show that unfair competition can, indeed, contribute toward frustration and maladjustment. Homogeneous grouping is a palliative to this.

Paul Woodring wrote, "It is bad educational procedure to

(*Concluded on page 47*)

c) "Surplusage" in a statutory which said claim is made." The notice

Shown: (above) *upper grade lecture-demonstration area and* (below) *isolated group arrangements using new Brunswick Tab-lette Chairs, Trizoid Desks, Cluster Combinations, Moduwall Space Divider.*

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BID PERFORMANCE

(*Concluded from page 41*)

subcontractors. Moreover, the statute required rejection of bids not strictly according to this form. Also, a copy of subbids was to be filed with the district, for examination by any general contractor in connection with his bidding. The court held that the general contractor could not require either type of bond from subcontractors. However, the court pointed out that it was not ruling on whether the district, in advertising for bids, might provide for such bonds by subcontractors.

e) **"Surplusage" in a statutory bond.** A rather wordy Georgia bond[17] was held to be the statutory bond, since it included every provision required by the statute, and recited that it was given for the statutory purpose. However, the bond stipulated that no claimant might bring action "unless claimant shall have given notice to any two of the following: the principal, the owner, or the surety . . . within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made." The notice was defective in that only the school authority was notified. The court held that the provision regarding notice was not a statutory requirement, and hence not valid. The court stated: "No law declares that a bond given in compliance with" the statute "but which includes a condition not authorized by the statute is void or invalid." The bond was valid insofar as it conformed to the statute, and invalid only in its other respects.

[17] *St. Paul-Mercury Indemnity Co.* v. *Koppers Co., Inc.*, 95 Ga. App. 687, 99 S. E. 2d 275 (1957, rehearing denied).

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SALARY SCHEDULES

(*Concluded from page 16*)

letic director, head coach of activities, etc., are classified as professional work. Teachers in this category accept the fact that a profession cannot always be governed by 8:00 o'clock to 4:30 o'clock hours, and they are willing to do what is needed to better the overall educational program.

Master Level. These people are, first, holders of Masters degrees who fill all the requirements of the professional teacher. In addition, they can be relied on to act as department heads, assist young teachers and assume leadership functions in their areas of education. They must be available for 200 days rather than the regular 190 day contract.

In all cases, teachers are moved up in level on two considerations. First, does a vacancy which carries Professional or Master level qualification exist, or has it been developed? Secondly, which available and interested teacher might be best qualified for that vacancy? The advisory council of master teachers assists in the selection, if more than one person is available. Under this program teachers are encouraged to assess their own time allowances and capabilities before accepting the demands and responsibilities of a professional level status. They are also encouraged to develop programs of excellence within their professional areas which will warrant the assignment of new professional level vacancies.

Does this program meet the objectives? Although new in operation, it is our belief that the program can and does: (1) define effectively, abilities and responsibilities, (2) classify and pay accordingly, (3) "job" rate, rather than "person" rate, (4) have an adequate basic salary level for their area without merit, (5) raise the salaries and provide incentive, and (6) result in no more frictions than exist in traditional schedules.

The Lakeland Board of Education has adopted this salary program which provides merit considerations without the controversial person-to-person rating. We feel that only through such action can we continue to justify the increasingly higher salaries we hope to achieve. ■

EDITORIAL

(*Concluded from page 44*)

ask an average child to compete with a genius or a moron, or even with a child who is mentally two or three years older or younger, just as it would be a mistake to ask the high school miler to run against Landy or Bannister, or against a man with one leg. It follows by no means that it is a mistake to let him compete with his equals, or near equals, in the activity under consideration, nor does it harm the child to know that Landy is a better runner than he, and Einstein a better mathematician."

Competition is a highly effective stimulant to learning. We ought to capitalize on its use. The trouble has been that we have missed it. Candidly, our pace of teaching has been uniform before students whose capabilities have not been uniform.

In skiing, all tyros start, wisely, on the beginners' slope. If we began in this manner to instruct a hundred students in this sport, it would soon become evident that some would master the hill in short order, others would need a little longer, while others — ill co-ordinated — would need extensive tutelage. Certainly we would not expect all one hundred pupils to continue skiing down this little slope over and over until the most inept conquered it. Of course not. We would send those who were ready on to an intermediate slope. Before too long we would have some still struggling on the gradual incline while others progressed rapidly to trails for expert skiers only. The natural and temporary segregation of these pupils is not bad. The fact that one person skis better than another should not be the test for the human worth of either. This is true whatever the line of accomplishment.

It is rare to hear anyone criticize homogeneous grouping or competition in the nonacademic area. It is enigmatic that anyone, least of all educators, should do so in the realm of the intellect. Rejecting homogeneous grouping to spare the feelings of youngsters is a delusion. They know, sometimes better then we, what their limitations are. And they compete whether we wish them to or not. It is up to us to improve their chances for success.

There are those among us who would eliminate competition in our schools. This is unrealistic and dangerous. Life is not without competition. It is all around us. In our own case, we encounter, despite the teacher shortage, competition whenever we look for a job. Rivalry is a strong motivating force. It is the proper use of it, not its elimination, that we should strive for in our classrooms. The first step is to group our children homogeneously for instructional purposes. — *Robert A. Watson.*

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3..A genuine guarantee: Every Acme Chemical product is guaranteed to give you complete satisfaction in the proper application for which it is intended. If it does not fulfill every claim we make for it, you may return it for credit.

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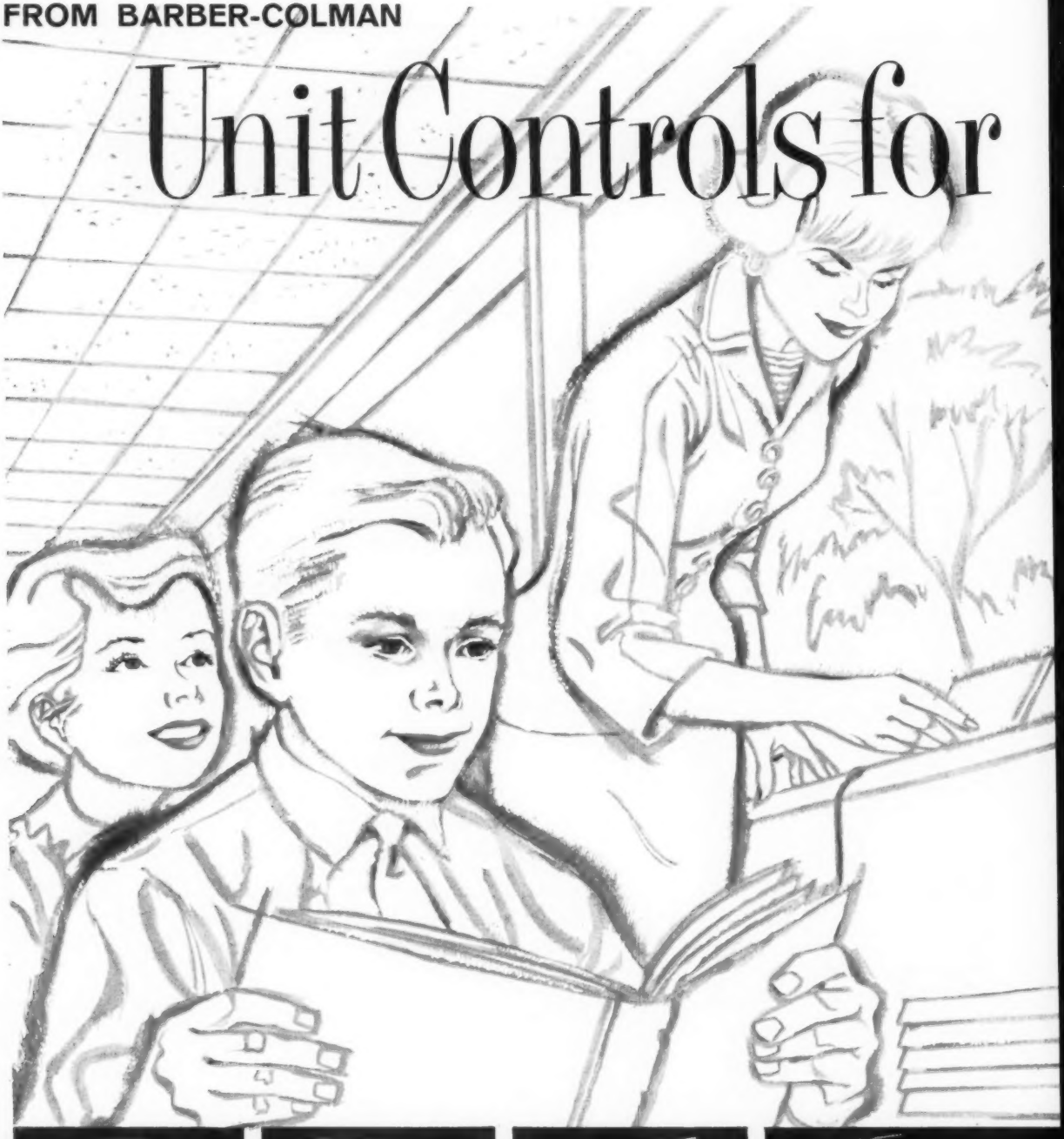

Use electricity that's already provided for the unit ventilator.

. . . to operate reliable Barber-Colman electric controls.

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Ask to hear the new Barber-Colman slide film: "The Sampling Chamber Story."

Unit Ventilators

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For many new schools, as well as additions and remodeling jobs, unit ventilators have been specified to provide individual and independent heating and ventilating of each classroom . . . and in a growing number of cases, year-around air conditioning which can be included at the time of installation or added later.

The numerous benefits of this individual classroom climate conditioning are insured by Barber-Colman packaged electric controls developed specifically for the application.

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First of all, Barber-Colman Company has taken the room thermostat off the wall and located it in a "sampling chamber" inside the unit ventilator enclosure. This proven concept checks the temperature of the room air five to six times as fast as any other system and corrects almost instantly for the slightest deviation. There are no drafts or wide fluctuations to cause discomfort and inattention or to aid and abet the common cold.

Mounting of the room thermostat inside the unit ventilator enclosure also eliminates the cost of extra wiring or piping necessary to install a thermostat on the wall. The temperature setting can be changed just as it can with a wall thermostat.

Lower costs

There are two basic types of control systems offered for unit ventilators. One employs an electrical circuit and electric motor operators to actuate the dampers which control temperature and air flow. The other type of system is operated by compressed air.

It makes good sense and saves money to utilize the electrical power that exists in each unit ventilator, as opposed to adding, at considerable cost, a completely separate compressed air piping system.

Maintenance costs are lower, too. Barber-Colman thermostats have no moving parts —and the motor operators provide the same high reliability you have come to associate with an electric motor.

What about school additions?

Is your school planned for future enlargement? With the packaged Barber-Colman controls, additions present no problems. The contractor simply connects the controls to the electrical wiring to create a complete "system" for each room.

Also, if you install unit ventilators designed for year-around air conditioning at a later date, Barber-Colman controls can be modified to handle the air conditioning at a much lower cost than can other types.

Summation of the case

Barber-Colman packaged electric controls are designed specifically and solely for unit ventilator installations—and have been thoroughly proven in thousands of classrooms throughout the country. They are your best buy because:

1. They provide a complete and independent control system for each unit ventilator, carry out fully the concept of *unitized* classroom climate conditioning.
2. They cost less to install because they use electricity which is already there and because they do not require a wall thermostat.
3. They provide faster response, more uniform temperatures, and freedom from drafts with the exclusive sampling chamber which continuously checks the room air temperature.
4. They require less maintenance than nonelectric systems.
5. They can be factory-mounted by the unit ventilator manufacturer to further save on installation costs.
6. They reduce the cost of additions to the school because they do not have to be connected to a central system.
7. They can be converted to year-around air conditioning control at lower cost than other systems.

For full details, consult your local Barber-Colman Air Distribution Products Field Office or write to the address below.

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NEW PRODUCTS

TRANSISTOR LANGUAGE LAB

A language laboratory designed to minimize the teacher's mechanical problems of control, has been developed by General

Need No Heavy Wiring

Electronic Control, Inc., Minneapolis 20, Minn. The Electronic system is completely transistorized and needs no special wiring. A teacher's console and 30 students booths can be simply plugged into any 110-volt outlet. It uses heavy-duty mylar tape in instant-loading and automatic threading cartridges. Teacher controls are simple pushbuttons with silent light signals. Send for full details.

(For Further Details Circle Index Code 0113)

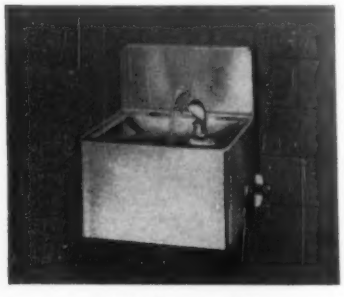
MOISTURE-PROOF PANELS

Acoustical panels that will withstand the corrosive effect of high humidity and chlorinated atmosphere of indoor swimming pools are a new product of Kemlite Corp., Joliet, Ill. The glass fiber, reinforced plastic panel is a light, translucent material that will not rot, mildew, or corrode. The perforated Kemdot panels come in white or pastel colors, with a matte finish that cuts down on water glare. Send for information and samples.

(For Further Details Circle Index Code 0114)

STAINLESS STEEL FOUNTAINS

Halsey W. Taylor Co., Warren, Ohio, manufacturers of drinking fountains and coolers, announces a complete, new line of stainless steel equipment. It embraces newly designed face-mounted wall-types, counter-style classroom fixtures, the new Wall-Mount and other coolers, all in stainless steel. The new line will add a modern decor to interiors of school, office buildings, and other structures.



Wall-Mount Unit

(For Further Details Circle Index Code 0115)

PROJECTOR SCREEN

A sturdy "Economy Adjuster" projection screen for auditorium, gymnasium, and church use is offered by the Luther O. Draper Shade Co., Spiceland, Ind. The screen may be suspended from the ceiling or girders, or attached to the wall. Flanged roller spools are attached at each end of the bottom aluminum tube so that the operating cord winds around and within the spools. This prevents the cord from tracking in the wrong direction. The white vinyl plastic screen surface is washable, fire retardant and mildew-proof. Sizes range 10 ft. sq. through 24 ft. sq.

(For Further Details Circle Index Code 0116)

DUPLICATING MACHINE

A budget-priced electric duplicating machine is able to reproduce 120 copies a minute of anything typed, written, drawn or traced. Made by Ditto, Inc., Model D-21 can deliver 300 to 500 copies in one to five colors from a single duplicating

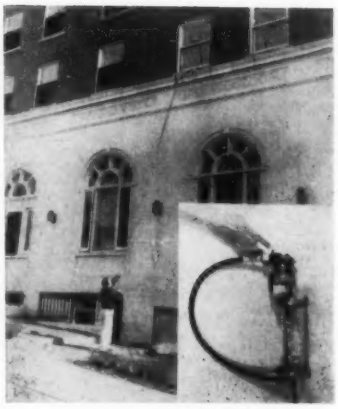
Makes Multi-Color Copies

master onto any weight paper from 16 pound to card stock. Paper size can range from 3 by 5 in. to 9 by 14 in. The machine comes equipped with the "Sure-Feed" system which features a feed pressure lever, paper separators, side guides, and a lift lever for fast paper insertion. Other features of the machine include electric, push-button control; a positive master lock-in; a slotted drum for quick attachment of blockout magnets; a reversible feed tray, and an automatic paper counter. A cabinet stand for storing supplies is an optional extra.

(For Further Details Circle Index Code 0117)

LONG-REACH WASHER

Two models of window washers that will reach heights up to 76 ft., while the operator remains on the ground, have been announced by Tucker Mfg. Co., Cedar



Telescoping Handle

Rapids, Iowa. The Tucker Window Washer has a telescoping handle that can be reduced or separated into sections for washing basement or lower level windows. One man operates the handle, brush and detergent dispenser that regulates the flow of detergent or rinse water. Special wide-flaring brushes are available. According to the firm, the window washer can save up to 15 minutes washing time per window. Send for details.

(For Further Details Circle Index Code 0118)

COMPACT OVERHEAD PROJECTOR

The new Master Vu-Graph series 7700 overhead projectors by Charles Beseler Co., East Orange, N. J., are designed for instruction of large groups. The larger overhead projector has a smaller profile which will not obstruct the audience's view of the instructor. Over-all size is 23 by 12½ by 12½ in. The projector will accept the

Projects on Large Screen

full 10 in. sq. transparencies of larger models and project them behind the speaker in sizes as large as 13 sq. ft. Other features are built-in cellophane roll device, silent blower cooling springloaded elevating legs, folding material shelf, outlet for accessory attachment, and hinged doors for easy relamping and servicing.

(For Further Details Circle Index Code 0119)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

SAFE BUS BODIES

Aircraft engineering principles were employed to produce a high arch, skin-stressed roof for a new line of school bus bodies made by Oneida Division of Marmon-Herrington Co., Inc., Indianapolis, Ind. Both the Starline de luxe models and the Guardian body feature four protective roof beams extending the full length of the bus, with heavy gauge steel sides, and reinforced rear structure and bumpers. According to the manufacturer, the new design promises extra safety, durability, and comfort.

(For Further Details Circle Index Code 0120)

PORTABLE LANGUAGE LAB

A new mobile language laboratory by Mobile-Tronics, Morrisville, Pa., has eight audio-active student stations and a teacher's monitor station. Each student has his own microphone and headset to listen to his

For Eight Students

voice in comparison to the master voice tape. Audio-passive headsets are also available for additional students. The mobile unit, Model MT-8P, is mounted in a self-contained cabinet on four-inch wheels for easy portability. Send for full details.

(For Further Details Circle Index Code 0121)

HOT AND COLD FOOD VENDER

A unique vending machine, by the Vendo Co., Kansas City, Mo., serves hot or frozen foods within inches of each other in the same cabinet. The 30 by 35 in. by 6½ ft. high vender has a temperature range of about zero to 155°. It offers up to 10 individually wrapped selections, each visible through a glass serving door. Interchangeable dividers on the turntable shelves allow various sized products to be sold. Prices for items may range from five cents to $1.50. Send for further information on the six Visi-Vend models.

A Meal in One Unit

(For Further Details Circle Index Code 0122)

ALL-METAL LANGUAGE BOOTH

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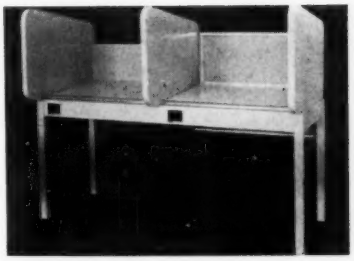
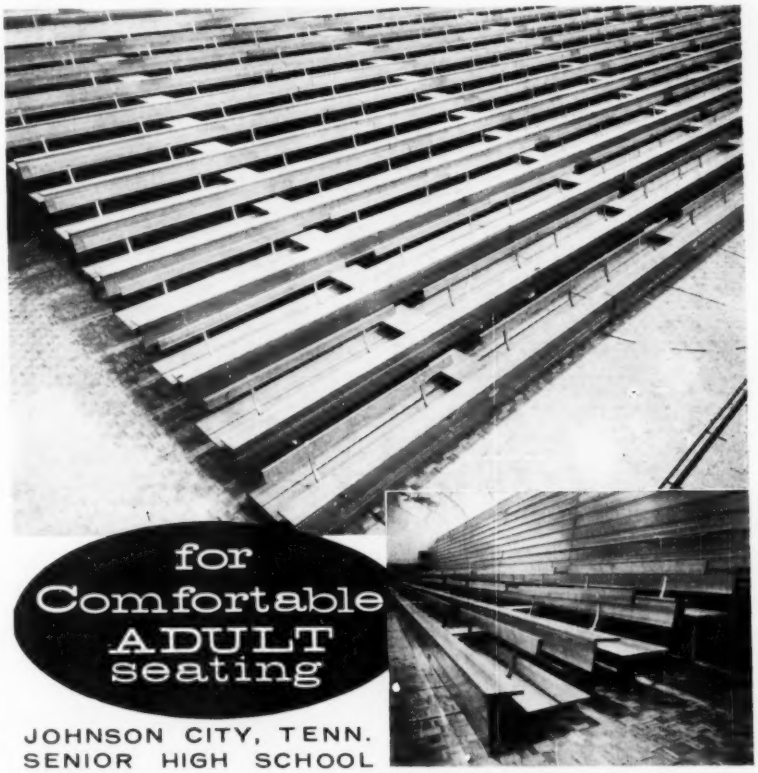


Has Fiberglas Panels

(For Further Details Circle Index Code 0123)



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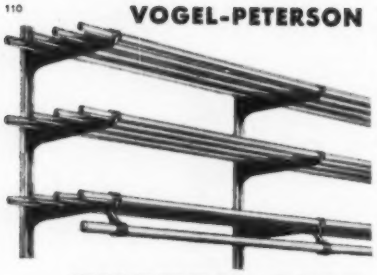

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2. Hat shelves with staggered cast aluminum coat hooks.
3. Hat or utility "plain" shelves for stacked tiers for general use.

Write for Bulletin CL-206

VOGEL-PETERSON CO.

Rt. 83 and Madison St. • Elmhurst, Ill.

LABORATORY TABLE

A new movable laboratory table, the "300," is offered to low-budget schools by the Science Kit Lab Corp., Tonawanda, N. Y. The sturdy maple table features a Formica top, stainless steel sink with waste system, three outlets, extension cord, ball-bearing wheels with brakes, and adjustable shelves with three tote trays. A galley pump water system and locks are optional. The equipment is suited for elementary and junior high schools.

(For Further Details Circle Index Code 0124)

SPEAKER SHELL

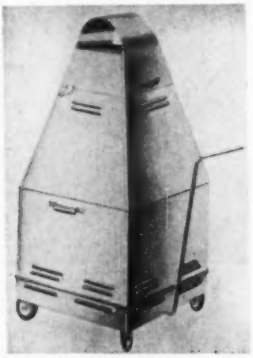
Cousino Electronics Corp., Toledo 1, Ohio, claims that its new portable Voice-Flector eliminates the need for special partitioned booths, earphones and microphones in language laboratories. This is a gray acoustic "hearback" shell on a free standing metal base with a twist lock that permits adjustment to the user's height. It comes with or without built-in speaker, microphone, and system wiring for lesson broadcast, instructor monitoring, and intercommunication. Used without the microphone, the unit provides oral practice privacy and self-monitoring. It is adaptable to all language laboratory equipment, as well as to regular tape recorders and record players. The makers recommend it for voice training, public speaking practice and speech therapy, as well as language lab use.

For Electronic Lab

(For Further Details Circle Index Code 0125)

MOBILE TRASH BURNER

A combination trash receptacle-incinerator by The Alsto Co., Cleveland 13, Ohio, has wheels and pull handle so that the unit may be moved to a safe area and its contents burned without emptying. Trash can be burned safely outdoors within ten feet of a building. The receptacle may be used either indoors or outdoors. It can be wheeled indoors as a protection against theft. Model F6W is a six bushel unit, 53 in. high, with a 24 sq. in. base. It is shipped assembled at a most reasonable price. Send for details.



Receptacle and Burner

(For Further Details Circle Index Code 0126)

WAX-POLYMER FINISH

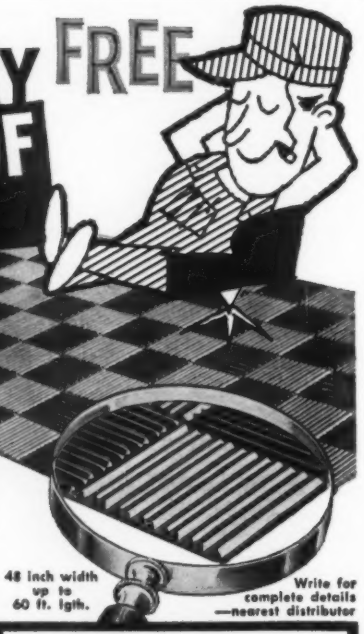
A major advance in floor finish chemistry has led to the development of a new product that combines the advantages of natural waxes and man-made polymers. The new product is "Waxtra!" made by S. C. Johnson & Son, Inc., Racine, Wis. According to the firm, "the new product combines such one-time opposites as brilliant high gloss with extra safety underfoot; resistance to scuffing with buffability; high solids content with a light-colored film; and water resistance with easy removability." It is available in 5, 12, 30, and 55 gal. containers from authorized distributors.

(For Further Details Circle Index Code 0127)

FLOOR WORRY FREE
WEAR PROOF
rubber matting
SHAD-O-RUG
by America's 1st name in floor mats since 1903

- Top quality ¼ inch heavy duty live rubber
- Choice of 6 smart decorator colors
- Low cost!

Today's most popular rubber runner! Stops dirt at the entranceway or in corridors and aisles. Prevents tracking throughout the building. Protects carpeting and floors . . . cuts down maintenance time, labor and expense. Anti-slip action prevents accidents. Ultra-attractive design.



48 inch width up to 60 ft. lgth.

Write for complete details —nearest distributor

CROSS-RIB RUNNER
Same top quality live rubber. Selection of smart colors. Functional design. Available in 36 and 48 inch widths—up to 60 ft. lgths.

Exclusive! Wear-Proof mats feature patented "V" rib design. Dirt is scraped off shoes by heavy duty blades with "windshield wiper" action — Dirt falls into slots, easily cleaned out later.

WEAR PROOF MAT CO. 2156 W. Fulton St., Chicago 12, Ill.

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

READER'S SERVICE SECTION

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Code No.		Page No.
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72	**Astra Corporation** Autoscore	1
73	**Barber-Colman Company** Automatic controls	48 & 49
74	**Berlin Chapman Company** Ez-a-way bleachers	51
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76	**Butler Manufacturing Company** Metal buildings	2nd cover
77	**Hillyard Chemical Company** Maintenance supplies	3rd cover
78	**Marmon-Herrington, Inc.** School buses	2
79	**Miller Co., The** Fluorescent fixtures	4th cover
710	**Minneapolis-Honeywell Regulator Co.** Thermostat control	4 & 5
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THE AMERICAN SCHOOL BOARD JOURNAL
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July, 1961

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IT'S WHAT YOU CAN'T SEE

WHEN YOU BUY FLOOR TREATMENTS you demand **visible** protection for your floors — mar-free beauty even under heavy traffic — underfoot safety — economical labor-saving maintenance.

For over a half a century the **invisible** ingredient—Hillyard **experience**—has created highest performance standards. Endless research in techniques of manufacture, researching raw materials, finalizing formulations, timely raw material buying in world markets, continual testing and precise laboratory controls guarantee you uniform high quality products.

The first trademark registered drum design in our industry—the blue and white checkerboard container—for generations has protected users with the promise—"You Know it's Right if it Comes in the Checkerboard Drum."

The final step—**service in the field.** Over 170 Hillyard technically trained "Maintaineers" follow through to supervise practical application, train your custodians in money saving maintenance procedures, and consult with you on problem floors. He's "On Your Staff—Not Your Payroll."

You'll see the difference when you choose Hillyard

On America's most Successful floors the Difference is

HILLYARD

Your Maintaineer® is ready to serve

"On Your Staff, Not Your Payroll"

JUST MAIL COUPON

HILLYARD St. Joseph, Mo. Dept. E-1

Without obligation, please have the Maintaineer show me why the best floor treatments are also the least expensive.

NAME _____

FIRM or INSTITUTION _____

ADDRESS _____

CITY _____

STATE _____

HILLYARD
ST. JOSEPH, MO.
Passaic, N. J.
San Jose, Calif.
SINCE 1907

BRANCHES AND WAREHOUSE STOCKS IN PRINCIPAL CITIES

(For more information from advertisers, use postcard on page 53)

More seeing comfort by design . . .

NEVER BEFORE, SO MUCH SEEING COMFORT AT SO LITTLE COST *in a Plastic-enclosed Fluorescent Fixture for Surface Mounting*

Duplex-a-lite®
LIGHTING *by* miller

- Two lamp, 4′ and 8′ lengths; Rapid Start and Slimline. Clear Acrylic or light stable Polystyrene lenses. 13⅞″ width.
- Self Hinging Plastic Enclosure for Each Lamp supported on both edges by continuous flanges in channel—Easy to Maintain—No Sag.
- Cooler Lamp and Ballast Operation—each lamp has its individual compartment widely separated by exposed metal channel which acts as a heat dissipator.

This altogether new and different looking fixture is a precision lighting tool, optically designed for optimum *seeing comfort* and economy . . . a performance feature we call Opticomfort. Duplex-a-lite controls and evenly distributes the right amount of the right kind of light where it's needed most . . . puts more usable light on the work or merchandise—less in the eyes. It is especially suitable for schools, offices, public buildings and stores . . . wherever there's a need for *seeing comfort* over prolonged periods of time.

A truly unique combination of fresh, trim appearance and *seeing comfort* at a *modest* price . . . a natural for on-the-ceiling mounting in newer buildings where ceilings are low.

For complete information, write Dept. 661 S, or contact your Miller Representative.

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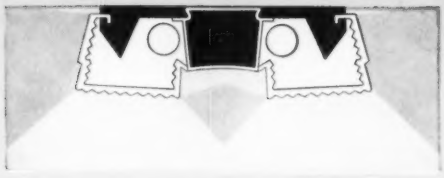

*Opticomfort** BY DESIGN

Another Miller First! Twin compartments separate and house each of Duplex-a-lite's two lamps in a unique manner that enables the optically designed, prismatic lenses to limit and control most of the light within the highly critical 45°-90° viewing zone. This assures optimum seeing comfort, or Opticomfort. Ceiling and center channel cover are softly illuminated. Enclosures of rigid plastic require no shadow-causing interior framework.

*Trademark Patent Pending

LIGHTING BY
miller
SINCE 1844

THE **miller** COMPANY
MERIDEN, CONNECTICUT • UTICA, OHIO